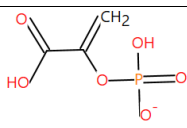
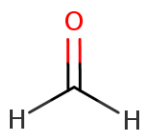
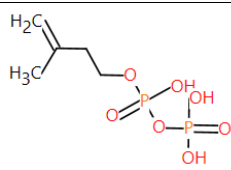
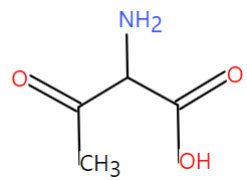
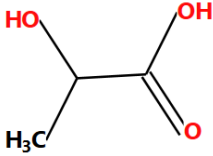
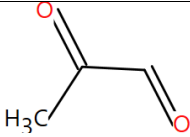
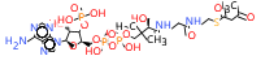
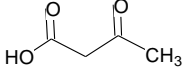
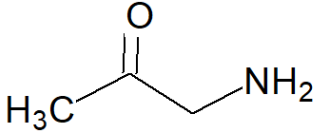
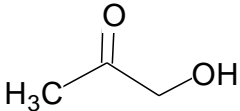


## Appendix I. R1 Inventory

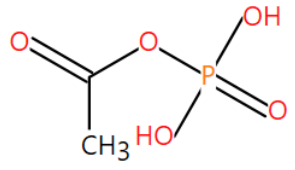
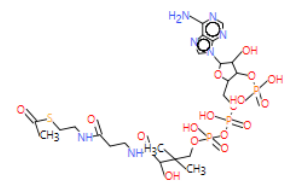
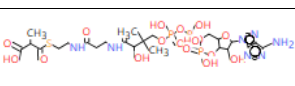
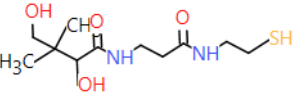
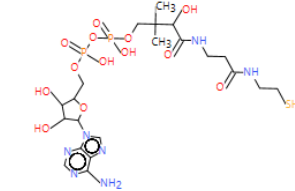
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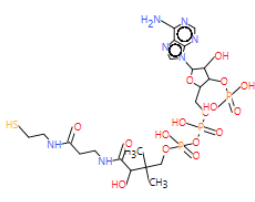
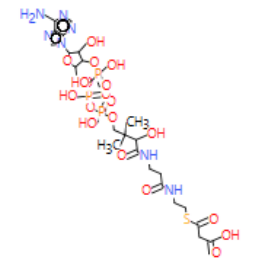
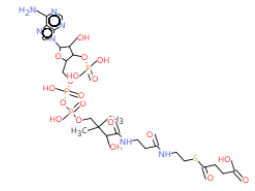
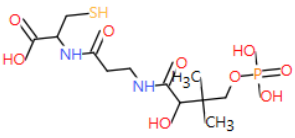
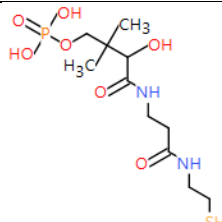
*“Is the substance a normal constituent of the body (F) or an optical isomer of such?”*

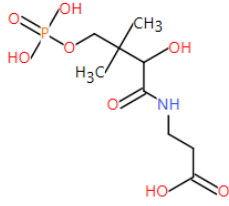
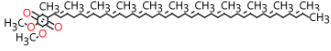
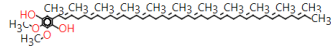
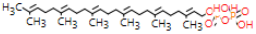
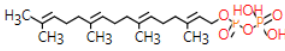
#	CAS #	EC #	Chemical name	SMILES	Structure	Reference source
1	7783-07-5	231-978-9	Hydrogen selenide	[SeH2]	$\text{H}_2\text{Se}$	<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-678">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-678</a>
2	630-08-0	211-128-3	Carbon monoxide	[C-]#[O+]	$\text{C}\equiv\text{O}^+$	<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBON-MONOXIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBON-MONOXIDE</a>
3	73-89-2		Phosphoenolpyruvate	<chem>OC(=O)C(=C)OP(O)([O-])=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=PHOSPHEENOLPYRUVATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=PHOSPHEENOLPYRUVATE</a>
4	50-00-0	2000018	Formaldehyde	C=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FORMALDEHYDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=FORMALDEHYDE</a>
5	358-71-4		DELTA3-ISOPENTENYL-PP	<chem>CC(=C)CCOP(=O)(O)OP(=O)(O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DELTA3-ISOPENTENYL-PP">http://biocyc.org/HUMAN/NEW-IMAGE?object=DELTA3-ISOPENTENYL-PP</a>
6			AMINO-OXOBUT	<chem>CC(=O)C(N)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=AMINO-OXOBUT">http://biocyc.org/HUMAN/NEW-IMAGE?object=AMINO-OXOBUT</a>

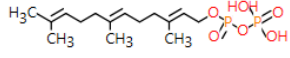
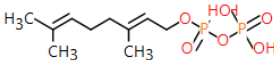
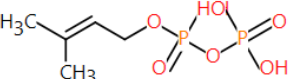
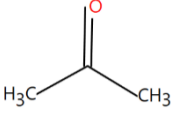
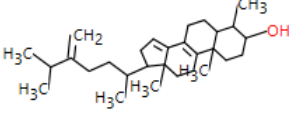
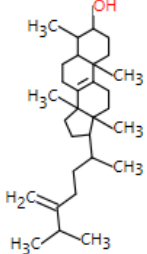
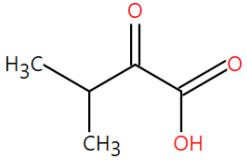
7	127-17-3	2048243	Pyruvate	<chem>CC(O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRUVATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRUVATE</a>
8	78-98-8	2011648	METHYL-GLYOXAL	<chem>CC(=O)C=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=METHYL-GLYOXAL">http://biocyc.org/HUMAN/NEW-IMAGE?object=METHYL-GLYOXAL</a>
9	1420-36-6	2158159	Acetoacetyl-CoA	<chem>[H]C3(COP(=O)(O)OP(=O)(O)OCC(C)(C)C(O)C(=O)NCCC(=O)NCCSC(=O)CC(C)=O)(OC([H])(N2C=NC=1C(N)=NC=12)C([H])(O)C3([H])(OP(=O)(O)O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ACETOACETYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=ACETOACETYL-COA</a>
10	541-50-4		3-Ketobutyrate	<chem>CC(=O)CC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-KETOBUTYRATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-KETOBUTYRATE</a>
11	298-08-8		Amino-acetone	<chem>CC(=O)CN</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=AMINO-ACETONE">http://biocyc.org/HUMAN/NEW-IMAGE?object=AMINO-ACETONE</a>
12	116-09-6	204-124-8	Acetol	<chem>CC(=O)CO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ACETOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=ACETOL</a>

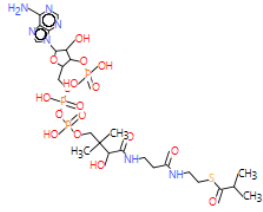
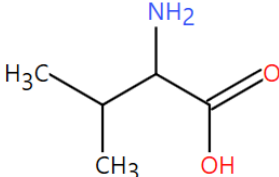
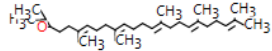
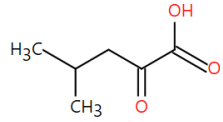
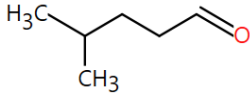
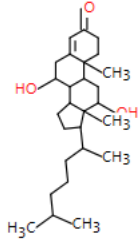
13	31022-50-1		Acetylgalactosamine	<chem>CC(=O)N[C@H]1C(O)O[C@H](CO)[C@H](O)[C@@H]1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-3604">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-3604</a>
14	528-04-1		UDP-N-Acetyl-D-Glucosamine	<chem>CC(=O)NC1C(O)C(O)C(CO)OC1OP(=O)(=O)OP(=O)(=O)OCC1OC(C(O)C1O)NIC=CC(=O)NC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=UDP-N-ACETYL-D-GLUCOSAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=UDP-N-ACETYL-D-GLUCOSAMINE</a>
15	102029-88-9		N-ACETYL-D-GLUCOSAMINE-6-P	<chem>CC(=O)NC1C(O)OC(COP(=O)(O)=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=N-ACETYL-D-GLUCOSAMINE-6-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=N-ACETYL-D-GLUCOSAMINE-6-P</a>
16	131-48-6		N-ACETYLRAMINATE	<chem>CC(=O)NC1C(O)CC(O)(OC1C(O)C(O)CO)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=N-ACETYLRAMINATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=N-ACETYLRAMINATE</a>
17	1210-83-9		N-Acetylserotonin	<chem>CC(=O)NCCc1c[nH]c2ccc(O)c12</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=N-ACETYLSEROTONIN">https://biocyc.org/compound?orgid=HUMAN&amp;id=N-ACETYLSEROTONIN</a>
18	18233-70-0		CPD-569	<chem>CC(=O)NCCCNC</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-569">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-569</a>
19	51-84-3		Acetylcholine	<chem>CC(=O)OCC[N+](C)(C)C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-569">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-569</a>

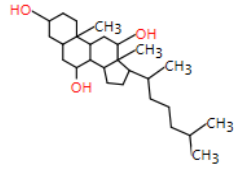
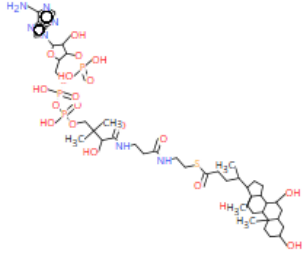
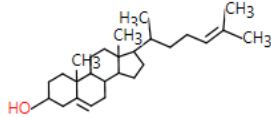
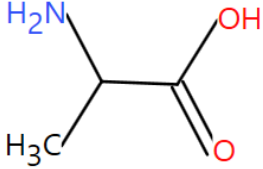
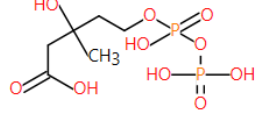
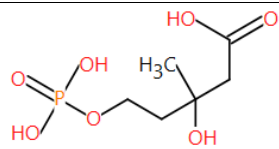
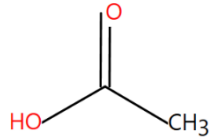
						<a href="#">ct=ACETYL CHOLINE</a>
20			L-Glutamate-5-P	<chem>CC(=O)OP(O)(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=L-GLUTAMATE-5-P">https://biocyc.org/compound?orgid=HUMAN&amp;id=L-GLUTAMATE-5-P</a>
21	72-89-9		Acetyl-CoA	<chem>CC(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(=O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ACETYL-COA">https://biocyc.org/compound?orgid=HUMAN&amp;id=ACETYL-COA</a>
22	104809-02-1		D-Methylmalonyl-CoA	<chem>CC(C(O)=O)C(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(=O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=D-METHYLMALONYL-COA">https://biocyc.org/compound?orgid=HUMAN&amp;id=D-METHYLMALONYL-COA</a>
23	496-65-1		CPD-511	<chem>CC(C)(CO)C(O)C(=O)NCCC(=O)NCCS</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-511">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-511</a>
24	3633-59-8		DEPHOSPHO-CoA	<chem>CC(C)(COP(O)(=O)OP(O)(=O)OCC1OC(C(O)C1O)n1cnc2c(N)ncnc12)C(O)C(=O)NCCC(=O)NCCS</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DEPHOSPHO-COA">https://biocyc.org/compound?orgid=HUMAN&amp;id=DEPHOSPHO-COA</a>

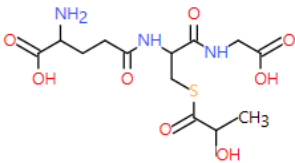
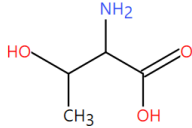
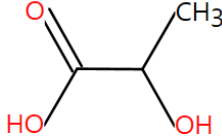
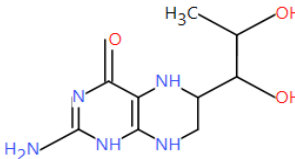
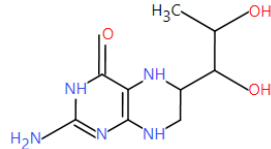
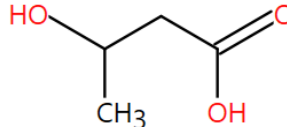

25	85-61-0		CO-A	<chem>CC(C)(COP(O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc21)C(O)C(=O)NCCC(=O)NCCS</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CO-A">https://biocyc.org/compound?orgid=HUMAN&amp;id=CO-A</a>
26	524-14-1		MALONYL-COA	<chem>CC(C)(COP(O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12)C(O)C(=O)NCCC(=O)NCCSC(=O)CC(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=MALONYL-COA">https://biocyc.org/compound?orgid=HUMAN&amp;id=MALONYL-COA</a>
27	604-98-8		SUC-COA	<chem>CC(C)(COP(O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12)C(O)C(=O)NCCC(=O)NCCSC(=O)CCC(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=SUC-COA">https://biocyc.org/compound?orgid=HUMAN&amp;id=SUC-COA</a>
28			R-4-PHOSPHOPANTOTHENYL-L-CYSTEINE	<chem>CC(C)(COP(O)(O)=O)C(O)C(=O)NC(=O)NC(CS)C(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=R-4-PHOSPHOPANTOTHENYL-L-CYSTEINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=R-4-PHOSPHOPANTOTHENYL-L-CYSTEINE</a>
29			PANTETHEINE-P	<chem>CC(C)(COP(O)(O)=O)C(O)C(=O)NCCS</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=PANTETHEINE-P">https://biocyc.org/compound?orgid=HUMAN&amp;id=PANTETHEINE-P</a>

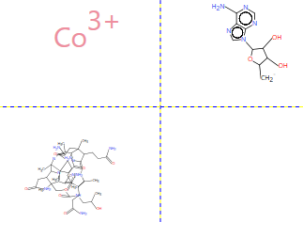
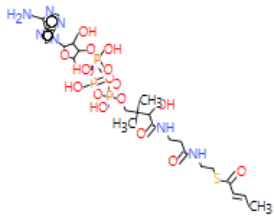
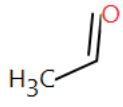
30	5875-50-3		4-P-PANTOTHENATE	<chem>CC(C)(COP(O)(O)=O)C(O)C(=O)NC(=O)C(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=4-P-PANTOTHENATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=4-P-PANTOTHENATE</a>
31	303-98-0		Coenzyme Q10	<chem>CC1=C(C(=O)C(=C(C1=O)OC)OC)C/C=C\C/C/C/C=C\C/C/C/C=C\C/C/C/C=C\C/C/C/C=C\C/C/C/C=C\C/C/C/C=C\C/C/C/C=C\C/C/C</chem>		<a href="https://en.wikipedia.org/wiki/Coenzyme_Q10?utm_source=chatgpt.com">https://en.wikipedia.org/wiki/Coenzyme_Q10?utm_source=chatgpt.com</a> [14]
32	992-78-9		Reduced coenzyme Q10	<chem>COc1c(O)c(C)c(C\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CC\C=C/C)CCC=C(C)C)c(O)c1OC</chem>		[13]
33	207513-95-9		ALL-TRANS-HEXAPRENYL-DIPHOSPHATE	<chem>CC(C)=CCC(C)=CCCC(C)=CCCC(C)=CCCC(C)=CCOP(O)(=O)OP(O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ALL-TRANS-HEXAPRENYL-DIPHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ALL-TRANS-HEXAPRENYL-DIPHOSPHATE</a>
34	6699-20-3		GERANYLGERANYL-PP	<chem>CC(C)=CCC(C)=CCCC(C)=CCCC(C)=CCOP(O)(=O)OP(O)(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GERANYLGERANYL-PP">https://biocyc.org/compound?orgid=HUMAN&amp;id=GERANYLGERANYL-PP</a>

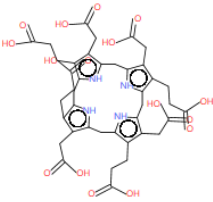

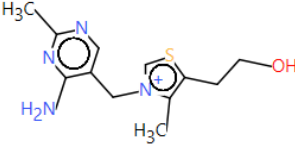
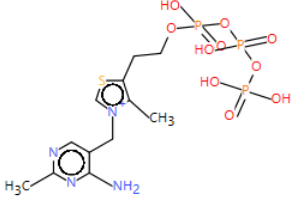
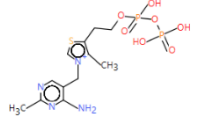
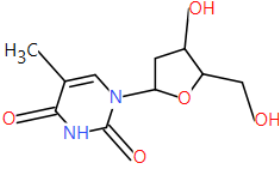
				<chem>(=O)OP(O)(O)=O</chem>		ANYLGERA NYL-PP
35	13058-04-3		FARNESYL-PP	<chem>CC(C)=CCC C(C)=CCCC (C)=CCOP(O)(=O)OP(O)(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=FARNESYL-PP">https://biocyc.org/compound?orgid=HUMAN&amp;id=FARNESYL-PP</a>
36	763-10-0		GERANYL-PP	<chem>CC(C)=CCC C(C)=CCOP(O)(=O)OP(O)(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GERANYL-PP">https://biocyc.org/compound?orgid=HUMAN&amp;id=GERANYL-PP</a>
37	358-71-4		CPD-4211	<chem>CC(C)=CCOP(O)(=O)OP(O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-4211">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-4211</a>
38	67-64-1		ACETONE	<chem>CC(C)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ACETONE">https://biocyc.org/compound?orgid=HUMAN&amp;id=ACETONE</a>
39			ALPHA-METHYL-5-ALPHA-ERGOSTA	<chem>CC(C)C(=C) CCC(C)C1C C=C2C3CC C4C(C)C(O) CCC4(C)C= 3CCC12C</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ALPHA-METHYL-5-ALPHA-ERGOSTA">https://biocyc.org/compound?orgid=HUMAN&amp;id=ALPHA-METHYL-5-ALPHA-ERGOSTA</a>
40	16910-32-0		Obtusifoliol	<chem>CC(C)C(=C) CCC(C)C1C CC2(C)C3C CC4C(C)C(O) CCC4(C) C=3CCC12C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OBTUSIFOLIOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=OBTUSIFOLIOL</a>
41	759-05-7		2-KETO-ISOVALERATE	<chem>CC(C)C(=O) C(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=2-KETO-ISOVALERATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=2-KETO-ISOVALERATE</a>

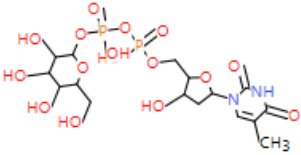
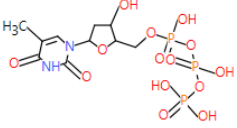
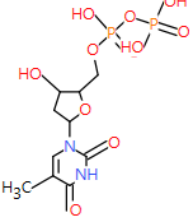
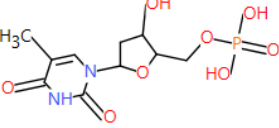
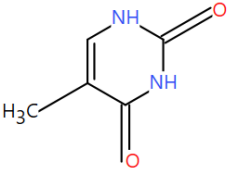
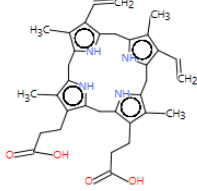
42	15621-60-0		ISOBUTYRYL-COA	<chem>CC(C)C(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ISOBUTYRYL-COA">https://biocyc.org/compound?orgid=HUMAN&amp;id=ISOBUTYRYL-COA</a>
43	516-06-3	2082200	DL-Valine	<chem>CC(C)C(C(=O)O)N</chem>		<a href="https://hmdb.ca/metabolites/HMDB0250806">https://hmdb.ca/metabolites/HMDB0250806</a>
44	9029-62-3		EPOXYSQUALENE	<chem>CC(C)=CCC(C)=CCCC(C)=CCCC=C(C)CCC=C(C)CCC1OC1(C)C</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=EPOXYSQUALENE">https://biocyc.org/compound?orgid=HUMAN&amp;id=EPOXYSQUALENE</a>
45	816-66-0		2K-4CH3-PENTANOATE	<chem>CC(C)CC(=O)C(=O)O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=2K-4CH3-PENTANOATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=2K-4CH3-PENTANOATE</a>
46	1119-16-0		4-METHYLPENTANAL	<chem>CC(C)CCC=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=4-METHYLPENTANAL">https://biocyc.org/compound?orgid=HUMAN&amp;id=4-METHYLPENTANAL</a>
47			CPD-1087	<chem>CC(C)CCCC(C)C1CCC2C3C(O)CC4=CC(=O)CC4(C)C3CC(O)C12C</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-1087">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-1087</a>
48			5-BETA-CHOLESTANE-3-ALPHA7-ALPHA12-ALP	<chem>CC(C)CCCC(C)C1CCC2C3C(O)CC4CC(O)CCC4</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=5-BETA-">https://biocyc.org/compound?orgid=HUMAN&amp;id=5-BETA-</a>

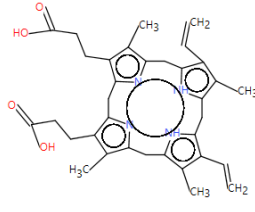
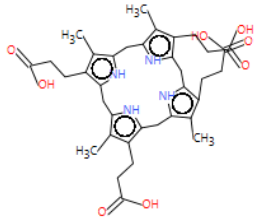
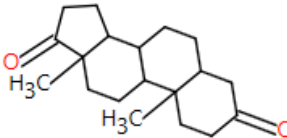
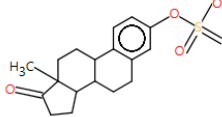
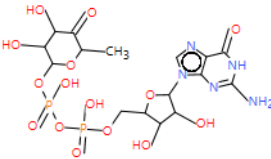
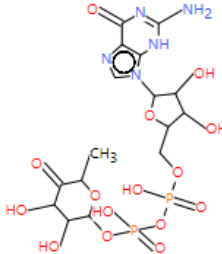
				(C)C3CC(O) C12C		CHOLESTA NE-3- ALPHA7- ALPHA12- ALP
49			CPD-202	CC(CCC(=O) )SCCNC(=O) )CCNC(=O) C(O)C(C)(C) COP(O)(=O) OP(O)(=O)O CC1OC(C(O) )C1OP(O)(O )=O)n1cnc2c (N)nnc21)C 1CCC2C3C( O)CC4CC(O )CCC4(C)C3 CC(O)C12C		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-202">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-202</a>
50	313-04-2		DESMOSTEROL-CPD	CC(CCC=C(C) C)C1CCC 2C3CC=C4C C(O)CCC4(C) C3CCC12 C		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DESMOSTEROL-CPD">https://biocyc.org/compound?orgid=HUMAN&amp;id=DESMOSTEROL-CPD</a>
51	302-72-7		D,L-Alanine	CC(N)C(O)= O		<a href="https://hmdb.ca/metabolites/HMDB0062251">https://hmdb.ca/metabolites/HMDB0062251</a>
52	4872-34-8		CPD-641	CC(O)(CCO P(O)(=O)OP(O) (O)=O)CC (O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-641">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-641</a>
53	73566-35-5		CPD-499	CC(O)(CCO P(O)(O)=O) CC(O)=O		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-499">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-499</a>
54	71-50-1		ACET	CC(=O)O		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ACET">https://biocyc.org/compound?orgid=HUMAN&amp;id=ACET</a>

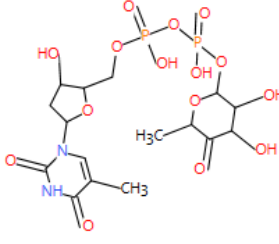
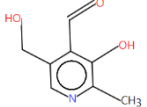
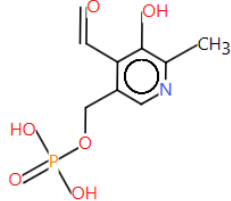
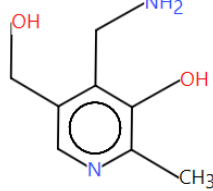
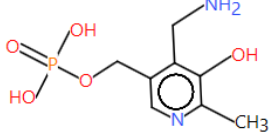
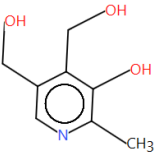
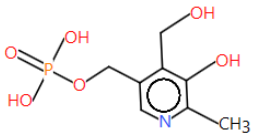
55	25138-66-3		S-LACTOYL-GLUTATHIONE	<chem>CC(O)C(=O)SCC(NC(=O)CCC(N)C(O)=O)C(=O)NCC(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=S-LACTOYL-GLUTATHIONE">https://biocyc.org/compound?orgid=HUMAN&amp;id=S-LACTOYL-GLUTATHIONE</a>
56	72-19-5		THREONINE	<chem>CC(O)C(N)C(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=THR">https://biocyc.org/compound?orgid=HUMAN&amp;id=THR</a>
57	10326-41-7	2011962	D-LACTATE	<chem>CC(O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=D-LACTATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=D-LACTATE</a>
58	17528-72-2		5,6,7,8-Tetrahydrobiopterin; TETRA-H-BIOPTERIN_2	<chem>CC(O)C(O)C1CNC2NC(N)=NC(=O)C=2N1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=TETRA-H-BIOPTERIN">http://biocyc.org/HUMAN/NEW-IMAGE?object=TETRA-H-BIOPTERIN</a>
59	17528-72-2		TETRA-H-BIOPTERIN	<chem>CC(O)C(O)C1CNC2N=C(N)NC(=O)C=2N1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=TETRA-H-BIOPTERIN">http://biocyc.org/HUMAN/NEW-IMAGE?object=TETRA-H-BIOPTERIN</a>
60	625-72-9		CPD-335	<chem>[H]C(C)(O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-335">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-335</a>
61	1867-62-5		COBINAMIDE	<chem>CC(O)CNC(=O)CCC1(C)C(CC(N)=O)C2N=C1C(C)=C1N=C(C)=C3N=C(C(C)=C4[N-]C2(C)C(C)(CC(N)=O)C4CCC(N)=O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=COBINAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=COBINAMIDE</a>

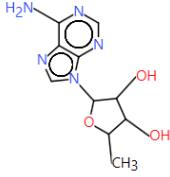
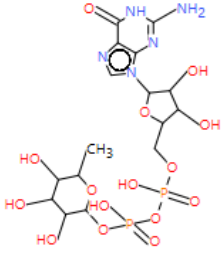
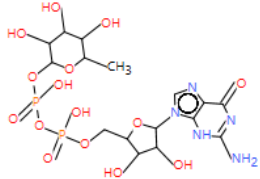
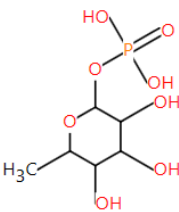
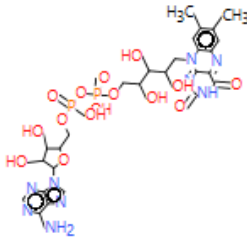
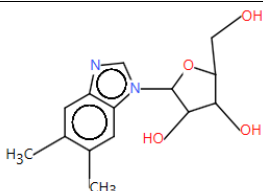
				<chem>C(C)(CC(N)=O)C3CCC(N)=O)C(C)(C)C1CCC(N)=O</chem>		
62			ADENOSYLCOBINAMIDE	<chem>[Co+3].[CH2-]C1OC(C(O)C1O)n1cnc2c(N)nenc21.CC(O)CNC(=O)CCC1(C)C(CC(N)=O)C2N=C1C(C)=C1N=C(C=C3N=C(C(C)=C4[N-]C2(C)C(C)(CC(N)=O)C4CCC(N)=O)C(C)(CC(N)=O)C3CCC(N)=O)C(C)(C)C1CCC(N)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSYLCOBINAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSYLCOBINAMIDE</a>
63	102680-35-3		CROTONYL-COA	<chem>CC=CC(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(O)(=O)OC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)nenc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CROTONYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=CROTONYL-COA</a>
64	75-07-0	75-07-02008368	ACETALD	<chem>CC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ACETALD">http://biocyc.org/HUMAN/NEW-IMAGE?object=ACETALD</a>

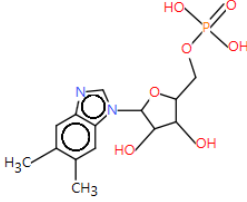
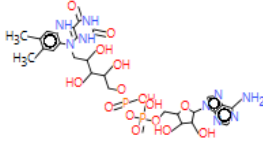
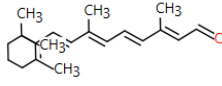
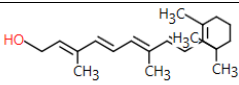
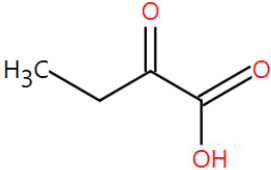
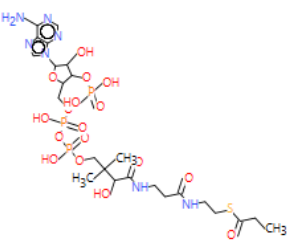
65	1976-85-8		UROPORPHYRINOGEN-III	<chem>OC(=O)CCc1c2Cc3[nH]c(Cc4[nH]c(Cc5[nH]c(Cc([nH]2)c1CC(O)=O)c(CCC(O)=O)c5CC(O)=O)c(CCC(O)=O)c4C(C(O)=O)c(C(C(O)=O)c3C(C(O)=O)CC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=UROPORPHYRINOGEN-III">http://biocyc.org/HUMAN/NEW-IMAGE?object=UROPORPHYRINOGEN-III</a>
66	14875-96-8		PROTOHEME	<chem>[Fe+4].Cc1c(CCC(O)=O)c2cc3[n-]c(cc4nc(cc5[n-]c(cc1n2)c(C)c5C=C)c(C)c4C=C)c(C)c3CCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOHEME">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOHEME</a>
67	59-43-8		Thiamine, Vitamin B1	<chem>Cc1ncc(C[n+]2csc(CCO)c2C)c(N)n1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=THIAMINE_[22,23 and 25]">http://biocyc.org/HUMAN/NEW-IMAGE?object=THIAMINE_[22,23 and 25]</a>
68	15666-52-1		CPD-611	<chem>Cc1ncc(C[n+]2csc(CCOP(O)(=O)OP(O)(=O)OP(O)(O)=O)c2C)c(N)n1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-611">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-611</a>
69	154-87-0		THIAMINE-PYROPHOSPHATE	<chem>CC2=NC=C(C[N+]1=CS(C(CCO)=C1(C))C(N)=N2</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=THIAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=THIAMINE</a>
70	50-89-5		THYMIDINE	<chem>CC1=CN(C2CC(O)C(CO)O2)C(=O)NC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=THYMIDINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=THYMIDINE</a>

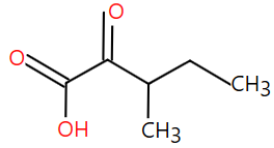
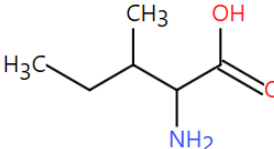
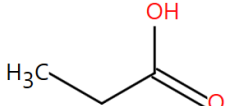
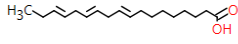
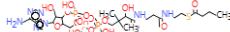
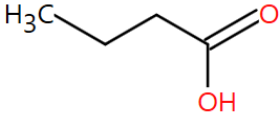
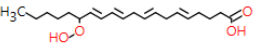
71	2009-24-7		DTDP-D-GLUCOSE	<chem>CC1=CN(C2CC(O)C(COP(=O)(=O)OP(O)(=O)OC3OC(CO)C(O)C(O)C3O)O2)C(=O)NC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DTDP-D-GLUCOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DTDP-D-GLUCOSE</a>
72	365-08-2	206-669-7	Deoxythymidine triphosphate	<chem>CC1=CN(C2CC(O)C(COP(=O)(=O)OP(O)(=O)OP(O)(=O)O2)C(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=TTP">https://biocyc.org/compound?orgid=HUMAN&amp;id=TTP</a>  <a href="https://www.hmdb.ca/metabolites/HMDB0001342">https://www.hmdb.ca/metabolites/HMDB0001342</a>
73	491-97-4		Deoxythymidine diphosphate	<chem>CC1=CN(C2CC(O)C(COP(=O)(=O)OP(O)(=O)O2)C(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=TDP">https://biocyc.org/compound?orgid=HUMAN&amp;id=TDP</a>
74	365-07-1		Deoxythymidine monophosphate	<chem>CC1=CN(C2CC(O)C(COP(=O)(O)=O)O2)C(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=TMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=TMP</a>
75	65-71-4		THYMINE	<chem>CC1=CNC(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=THYMINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=THYMINE</a>
76	7412-77-3		Protoporphyrinogen	<chem>Cc1c2Cc3[nH]c(Cc4[nH]c(Cc5[nH]c(Cc([nH]2)c1CCC(O)=O)c(CCC(O)=O)c5C)c(C=C)c4C)c(C=C)c3C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRINOGEN">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRINOGEN</a>

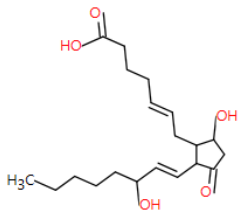
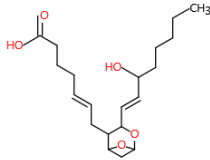
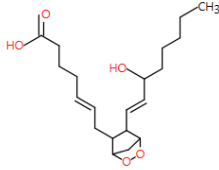
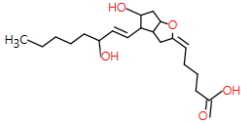
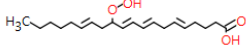
77	553-12-8		PROTOPORPHYRIN_IX	<chem>Cc1c(CCC(O)=O)c2cc3nc(cc4[nH]c(cc5[nH]c(cc1n2)c(C)c5C=C)c(C)c4C=C)c(C)c3CCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRIN_IX">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRIN_IX</a>
78	2624-63-7		COPROPORPHYRINOGEN_III	<chem>Cc1c2Cc3[nH]c(Cc4[nH]c(Cc5[nH]c(Cc([nH]2)c1CCC(O)=O)c(C)c5CCC(O)=O)c(C)c4CC(O)=O)c(CCC(O)=O)c3C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=COPROPORPHYRINOGEN_III">http://biocyc.org/HUMAN/NEW-IMAGE?object=COPROPORPHYRINOGEN_III</a>
79	846-46-8	2126855	CPD-342	<chem>CC12CCC(=O)CC1CCC1C2CCC2(C)C1CCC2=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-342">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-342</a>
80	481-97-0		ESTRONE-SULFATE	<chem>CC12CCC3C(CC4cc(OS(O)(=O)=O)cc34)C1CCC2=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ESTRONE-SULFATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ESTRONE-SULFATE</a>
81	18186-48-6		GDP-4-DEHYDRO-6-DEOXY-D-MANNOSE	<chem>CC1OC(OP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2O)n2cnc3C(=O)NC(N)=Nc32)C(O)C(O)C1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-4-DEHYDRO-6-DEOXY-D-MANNOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-4-DEHYDRO-6-DEOXY-D-MANNOSE</a>
82	18186-48-6		GDP-4-DEHYDRO-6-DEOXY-D-MANNOSE_2	<chem>CC1OC(OP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2O)n2cnc3C(=O)N=C(N)Nc32)C(O)C(O)C1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-4-DEHYDRO-6-DEOXY-D-MANNOSE_2">http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-4-DEHYDRO-6-DEOXY-D-MANNOSE_2</a>

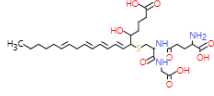
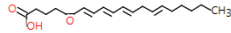
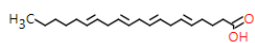
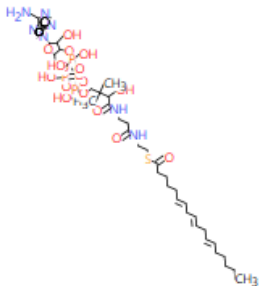
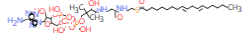
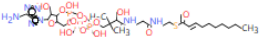
83			DTDP-DEOH-DEOXY-GLUCOSE	<chem>CC1OC(OP(O)(=O)OP(O)(=O)OCC2OC(CC2O)N2C=C(C)C(=O)NC2=O)C(O)C1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DTDP-DEOH-DEOXY-GLUCOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DTDP-DEOH-DEOXY-GLUCOSE</a>
84	66-72-8	2006308	PYRIDOXAL	<chem>CC1=NC=C(CO)C(C=O)=C1(O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAL">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAL</a>
85	54-47-7		PYRIDOXAL PHOSPHATE	<chem>Cc1ncc(COP(O)(O)=O)c(C=O)c1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAL_PHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAL_PHOSPHATE</a>
86	85-87-0	2016405	PYRIDOXAMINE	<chem>Cc1ncc(CO)c(CN)c1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAMINE</a>
87	529-96-4	2084716	PYRIDOXAMINE-5P	<chem>Cc1ncc(COP(O)(O)=O)c(CN)c1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAMINE-5P">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXAMINE-5P</a>
88	65-23-6	2006030	PYRIDOXINE	<chem>Cc1ncc(CO)c(CO)c1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXINE</a>
89	447-05-2	2071796	PYRIDOXINE-5P	<chem>Cc1ncc(COP(O)(O)=O)c(CO)c1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXINE-5P">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRIDOXINE-5P</a>

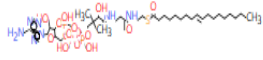
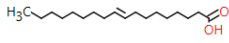
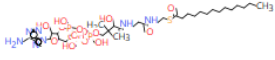
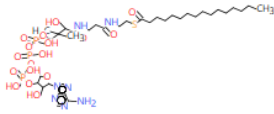
90			CH33ADO	<chem>CC1OC(C(O)C1O)n1cnc2c(N)ncnc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CH33ADO">http://biocyc.org/HUMAN/NEW-IMAGE?object=CH33ADO</a>
91	15839-70-0		GUANOSINE_DIPHOSPHATE_FUCOSE_2	<chem>CC1OC(OP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2O)n2cnc3C(=O)NC(N)=Nc23)C(O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE_DIPHOSPHATE_FUCOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE_DIPHOSPHATE_FUCOSE</a>
92	15839-70-0		GUANOSINE_DIPHOSPHATE_FUCOSE	<chem>CC1OC(OP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2O)n2cnc3C(=O)N=C(N)Nc23)C(O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE_DIPHOSPHATE_FUCOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE_DIPHOSPHATE_FUCOSE</a>
93	526-31-8		CPD-488	<chem>CC1OC(OP(O)(O)=O)C(O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-488">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-488</a>
94	146-14-5	2056631	FAD	<chem>Cc1cc2N=C3C(=O)NC(=O)N=C3N(C(C(O)C(O)C(O)COP(O)(=O)OP(O)(=O)OCC3OC(C(O)C3O)n3cnc4c(N)ncnc34)c2cc1C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FAD">http://biocyc.org/HUMAN/NEW-IMAGE?object=FAD</a>
95	132-13-8		alpha-Ribazole	<chem>Cc1cc2ncn(C3OC(CO)C(O)C3O)c2cc1C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ALPHA-RIBAZOLE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ALPHA-RIBAZOLE</a>

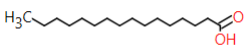
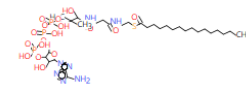
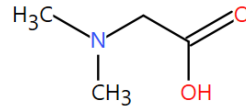
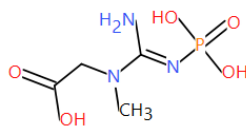
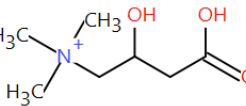
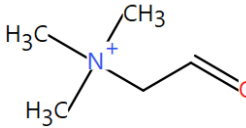
96	975-91-7		ALPHA-RIBAZOLE-5-P	<chem>Cc1cc2ncn(C3OC(COP(O)(O)=O)C(O)C3O)c2cc1C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ALPHA-RIBAZOLE-5-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=ALPHA-RIBAZOLE-5-P</a>
97	1910-41-4		FADH2	<chem>Cc1cc2NC3C(=O)NC(=O)NC=3N(C(C(O)C(O)C(O)COP(O)(=O)OP(O)(=O)OCC3OC(C(O)C3O)n3cnc4c(N)ncnc43)c2cc1C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FADH2">http://biocyc.org/HUMAN/NEW-IMAGE?object=FADH2</a>
98	116-31-4		RETINAL	<chem>CC(C=CC=C(C)C=CC1=C(C)CCCC1(C)C)=CC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=RETINAL">http://biocyc.org/HUMAN/NEW-IMAGE?object=RETINAL</a>
99	11103-57-4		Retinol	<chem>CC(C=CC=C(C)C=CC1=C(C)CCCC1(C)C)=CCO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=RETINOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=RETINOL</a>
100	600-18-0	2099869	2-OXOBUTANOATE	<chem>CCC(=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2-OXOBUTANOATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=2-OXOBUTANOATE</a>
101	317-66-8		PROPIONYL-COA	<chem>CCC(=O)SCNC(=O)CCNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROPIONYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROPIONYL-COA</a>

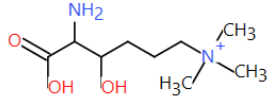
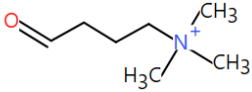
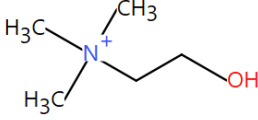
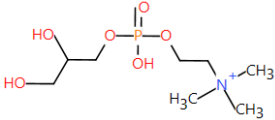
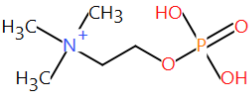
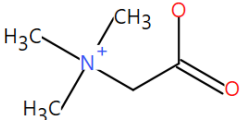
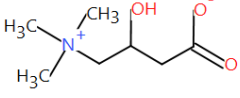
102	1460-34-0	2159550	2-KETO-3-METHYL-VALERATE	<chem>CCC(C)C(=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2-KETO-3-METHYL-VALERATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=2-KETO-3-METHYL-VALERATE</a>
103	443-79-8	207-139-8	D,L-Isoleucine	<chem>CCC(C)C(N)C(O)=O</chem>		<a href="https://hmdb.ca/metabolites/HMDB0033923">https://hmdb.ca/metabolites/HMDB0033923</a>
104	79-09-4	2011763	PROPIONATE	<chem>CCC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROPIONATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROPIONATE</a>
105	463-40-1		LINOLENIC ACID	<chem>CCC=CCC=CCCCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=LINOLENIC_ACID">http://biocyc.org/HUMAN/NEW-IMAGE?object=LINOLENIC_ACID</a>
106	2140-48-9		BUTYRYL-COA	<chem>CCCC(=O)SCCNC(=O)CNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=BUTYRYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=BUTYRYL-COA</a>
107	107-92-6	2035323	BUTYRIC ACID	<chem>CCCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=BUTYRIC_ACID">http://biocyc.org/HUMAN/NEW-IMAGE?object=BUTYRIC_ACID</a>
108			5Z8Z11Z13E-15S-15-HYDROPEROXYICOS	<chem>CCCCC(O)C=CC=CC=CCC=CC(CCC(O)=O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z8Z11Z13E-15S-15-HYDROPEROXYICOS">http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z8Z11Z13E-15S-15-HYDROPEROXYICOS</a>

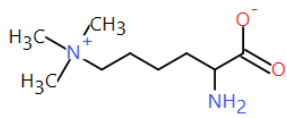
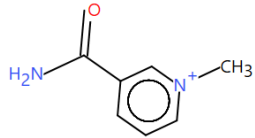
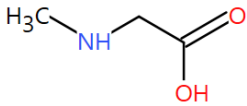
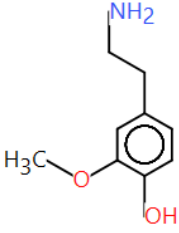
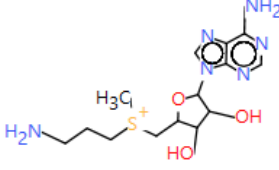
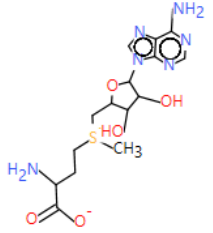
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109	41598-07-6		5Z13E-15S-9-ALPHA15-DIHYDROXY-11-O	<chem>CCCCC(O)C=CC1C(CC=CCCC(O)=O)C(O)CC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z13E-15S-9-ALPHA15-DIHYDROXY-11-O">http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z13E-15S-9-ALPHA15-DIHYDROXY-11-O</a>
110			ALPHA11-ALPHA-EPOXY-15-HYDROXYTROMBA	<chem>CCCCC(O)C=CC1OC2CC(O2)C1C=C(CCCC(O)=O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ALPHA11-ALPHA-EPOXY-15-HYDROXYTROMBA">http://biocyc.org/HUMAN/NEW-IMAGE?object=ALPHA11-ALPHA-EPOXY-15-HYDROXYTROMBA</a>
111	42935-17-1		PROSTAGLANDIN-H2	<chem>CCCCC(O)C=CC1C2C(C(OO2)C1C=C(CCCC(O)=O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROSTAGLANDIN-H2">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROSTAGLANDIN-H2</a>
112	35121-78-9		5Z13E-15S-69-ALPHA-EPOXY-11-ALPHA	<chem>CCCCC(O)C=CC1C(O)CC2OC(CC12)=CCCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z13E-15S-69-ALPHA-EPOXY-11-ALPHA">http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z13E-15S-69-ALPHA-EPOXY-11-ALPHA</a>
113			5Z8Z10E14Z-12S-12-HYDROPEROXYICOS	<chem>CCCCC=C(CC(OO)C=C)C=CCC=CC(CCC(O)=O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z8Z10E14Z-12S-12-HYDROPEROXYICOS">http://biocyc.org/HUMAN/NEW-IMAGE?object=5Z8Z10E14Z-12S-12-HYDROPEROXYICOS</a>
114	72025-60-6		LEUKOTRIENE-C4	<chem>CCCCC=C(CC=CC=CC=CC(SCC(N</chem>		<a href="http://biocyc.org/HUMAN/NEW-">http://biocyc.org/HUMAN/NEW-</a>

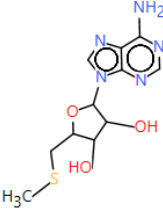
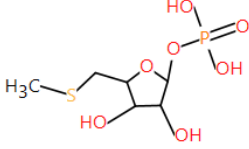
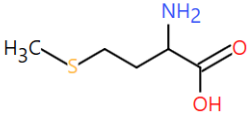

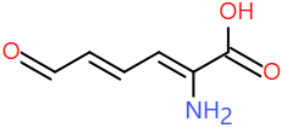
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115	72059-45-1		CPD-8892	<chem>CCCCC=C(CC=CC=CC=CC1OC1C)CCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-8892">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-8892</a>
116	506-32-1	EC Number:2080334	ARACHIDONIC ACID	<chem>CCCCC=C(CC=CCC=C)CC=CCCC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ARACHIDONIC ACID">http://biocyc.org/HUMAN/NEW-IMAGE?object=ARACHIDONIC ACID</a>
117			GAMMA-LINOLENOYL COA	<chem>CCCCC=C(CC=CCC=C)CCCC(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GAMMA-LINOLENOYL COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=GAMMA-LINOLENOYL COA</a>
118			CPD-18	<chem>CCCCC=C(CC=CCCC)CCCC(=O)SCCNC(=O)C(CNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-18">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-18</a>
119			T2-DECENOYL COA	<chem>CCCCCCCC=CC(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=T2-">http://biocyc.org/HUMAN/NEW-IMAGE?object=T2-</a>

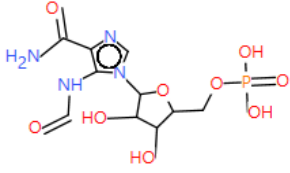
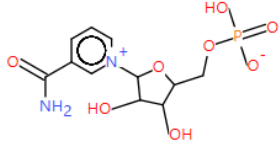
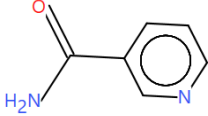
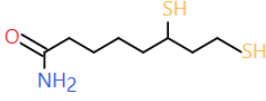
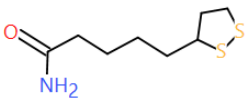
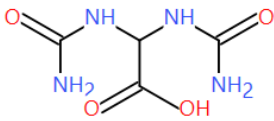
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120	1716-06-9	216-998-8	OLEOYL-COA	CCCCCCCC C=CCCCC CCC(=O)SC CNC(=O)CC NC(=O)C(O) C(C)(C)COP (O)(=O)OP( O)(=O)OCC 1OC(C(O)C1 OP(O)(O)=O )n1cnc2c(N) nnc21		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OLEOYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=OLEOYL-COA</a>
121	112-80-1		OLEATE-CPD	CCCCCCCC C=CCCCC CCC(=O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OLEATE-CPD">http://biocyc.org/HUMAN/NEW-IMAGE?object=OLEATE-CPD</a>
122	3139-72-1		TETRADECANOYL-COA	CCCCCCCC CCCCC(=O) SCCNC(=O) CCNC(=O) )C(O)C(C)(C) )COP(O)(=O) )OP(O)(=O) OCC1OC(C(O) C1OP(O)(O)=O)n1cnc 2c(N)nnc12		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=TETRADECANOYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=TETRADECANOYL-COA</a>
123	362-66-3		STEAROYL-COA	CCCCCCCC CCCCCCCC (=O)SCCNC (=O)CCNC( =O)C(O)C(C )C)COP(O)( =O)OP(O)(= O)OCC1OC(C C(O)C1OP( O)(O)=O)n1c nc2c(N)nnc 12		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=STEAROYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=STEAROYL-COA</a>

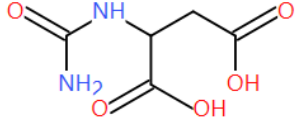
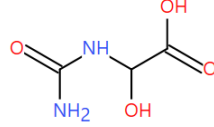
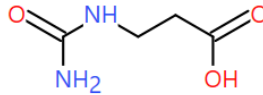
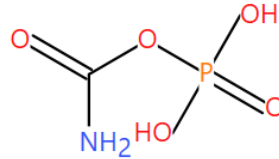
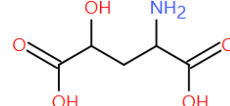
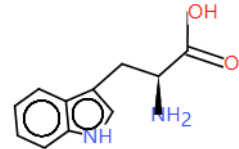
124	57-10-3	2003129	PALMITATE	CCCCCCCC CCCCCCCC (O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PALMITATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PALMITATE</a>
125	1763-10-6		PALMITYL-COA	CCCCCCCC CCCCCCCC (=O)SCCNC (=O)CCNC (=O)C(O)C(C) (C)COP(O) (=O)OP(O) (=O)OCC1OC (C(O)C1OP (O)(O)=O)n1c nc2c(N)nenc 21		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PALMITYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=PALMITYL-COA</a>
126	1118-68-9	2142678	DIMETHYL-GLYCINE	CN(C)CC(O) =O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DIMETHYL-GLYCINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DIMETHYL-GLYCINE</a>
127	67-07-2		CREATINE-P	CN(CC(=O) O)C(N)=NP (=O)(O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CREATINE-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=CREATINE-P</a>
128	541-14-0		D-CARNITINE	C[N+](C)(C) CC(O)CC(O) =O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CARNITINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CARNITINE</a>
129	7418-61-3		BETAINE_ALDEHYDE	C[N+](C)(C) CC=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=BETAINE_ALDEHYDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=BETAINE_ALDEHYDE</a>

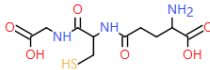
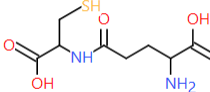
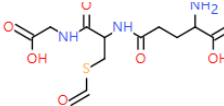
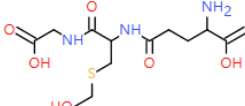
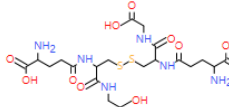
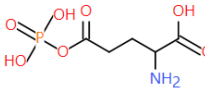
130			3-HYDROXY-N6N6N6-TRIMETHYL-L-LYSINE	<chem>C[N+](C)(C)CCCC(O)C(N)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-HYDROXY-N6N6N6-TRIMETHYL-L-LYSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-HYDROXY-N6N6N6-TRIMETHYL-L-LYSINE</a>
131	64595-66-0		4-TRIMETHYLAMMONIOPUTANAL	<chem>C[N+](C)(C)CCCC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=4-TRIMETHYLAMMONIOPUTANAL">http://biocyc.org/HUMAN/NEW-IMAGE?object=4-TRIMETHYLAMMONIOPUTANAL</a>
132	123-41-1		CHOLINE	<chem>C[N+](C)(C)CCO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CHOLINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CHOLINE</a>
133	28319-77-9	248-962-2	L-1-GLYCEROPHOSPHORYLCHOLINE	<chem>C[N+](C)(C)CCOP(=O)(O)OCC(O)CO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=L-1-GLYCEROPHOSPHORYLCHOLINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=L-1-GLYCEROPHOSPHORYLCHOLINE</a>
134	107-73-3		PHOSPHORYLCHOLINE	<chem>C[N+](C)(C)CCOP(=O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORYLCHOLINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORYLCHOLINE</a>
135	107-43-7	2034906	BETAINE	<chem>C[N+](C)(C)CC(=O)[O-]</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=BETAINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=BETAINE</a>
136	541-15-1	206-976-6	CARNITINE	<chem>C[N+](C)(C)CC(O)CC([O-])=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CARNITINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CARNITINE</a>

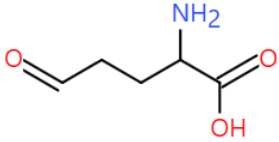
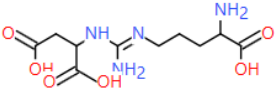
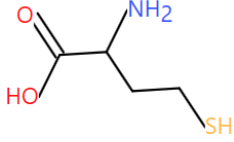
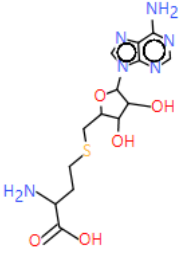
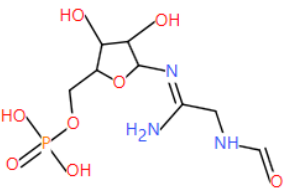
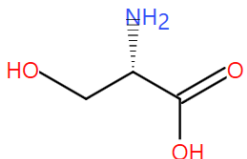
						<a href="#">ct=CARNITINE</a>
137			N6N6N6-TRIMETHYL-L-LYSINE	<chem>[H]C(N)(CC(C)[N+](C)(C)C(=O)[O-])</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=N6N6N6-TRIMETHYL-L-LYSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=N6N6N6-TRIMETHYL-L-LYSINE</a>
138			CPD-396	<chem>C[n+]1cccc(c1)C(N)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-396">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-396</a>
139	107-97-1	2035386	SARCOSINE	<chem>CNCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SARCOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=SARCOSINE</a>
140			CPD-7650	<chem>COc1cc(CCN)ccc1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-7650">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-7650</a>
141	22365-13-5		S-ADENOSYLMETHIONINE	<chem>C[S+](CCC(N)CC1OC(C(O)C1O)n1cnc2c(N)ncnc21)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=S-ADENOSYLMETHIONINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=S-ADENOSYLMETHIONINE</a>
142	29908-03-0		S-ADENOSYLMETHIONINE	<chem>C[S+](CCC(N)C([O-])=O)CC1OC(C(O)C1O)n1cnc2c(N)ncnc21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=S-ADENOSYLMETHIONINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=S-ADENOSYLMETHIONINE</a>

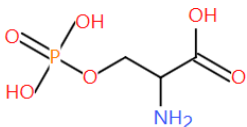
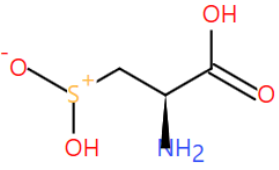
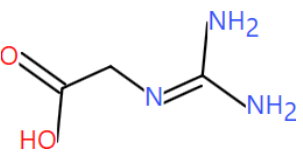
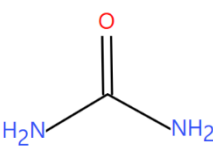
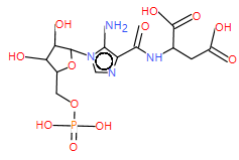
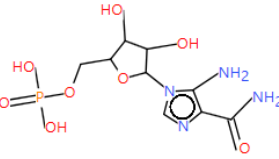
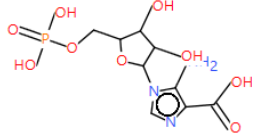
143	2457-80-9		5-METHYLTHIOADENOSINE	CSCC1OC(C(O)C1O)n1cnc2c(N)ncnc21		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-METHYLTHIOADENOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-METHYLTHIOADENOSINE</a>
144			CPD-444	CSCC1OC(OP(O)(O)=O)C(O)C1O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-444">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-444</a>
145	59-51-8	200-432-1	D,L-Methionine	CSCCC(C(=O)O)N		<a href="https://hmdb.ca/metabolites/HMDB0033951">https://hmdb.ca/metabolites/HMDB0033951</a>
146	7553-56-2	231-442-4	IODINE-MOLECULE	II		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=IODINE-MOLECULE">http://biocyc.org/HUMAN/NEW-IMAGE?object=IODINE-MOLECULE</a>
147	7664-41-7	2316353	AMMONIA	N	$\text{NH}_3$	<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=AMMONIA">http://biocyc.org/HUMAN/NEW-IMAGE?object=AMMONIA</a>
148	10102-43-9	233-271-0	NITRIC-OXIDE	N=O	$\text{N}=\text{O}$	<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NITRIC-OXIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=NITRIC-OXIDE</a>
149			2-AMINOMUCONATE SEMIALDEHYDE	NC(=CC=CC(=O)C(O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2-AMINOMUCONATE SEMIALDEHYDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=2-AMINOMUCONATE SEMIALDEHYDE</a>

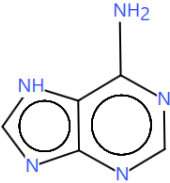
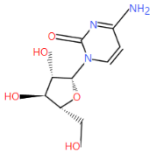
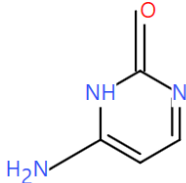
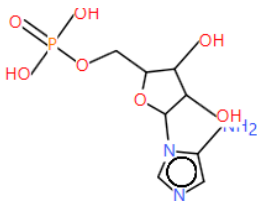
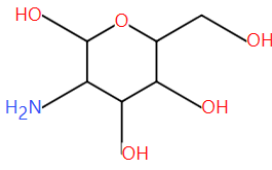
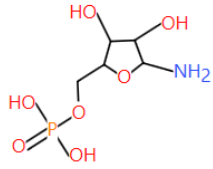
150			PHOSPHORIBOSYL-FORMAMIDOCARBOXAMIDE	<chem>NC(=O)c1ncn(C2OC(COP(=O)(O)=O)C(O)C2O)c1NC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORIBOSYL-FORMAMID_O-CARBOXAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORIBOSYL-FORMAMID_O-CARBOXAMIDE</a>
151	1094-61-7		NICOTINAMIDE_NUCLEOTIDE	<chem>NC(=O)c1cc[n+](c1)C1OC(COP(=O)([O-])=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NICOTINAMIDE_NUCLEOTIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=NICOTINAMIDE_NUCLEOTIDE</a>
152	98-92-0	2027134	NIACINAMIDE	<chem>NC(=O)c1ccncc1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NIACINAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=NIACINAMIDE</a>
153	3884-47-7		DIHYDROLIPOAMIDE	<chem>NC(=O)CCCCC(S)CCS</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDROLIPOAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDROLIPOAMIDE</a>
154	940-69-2	2133752	LIPOAMIDE	<chem>NC(=O)CCCCC1CCSS1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=LIPOAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=LIPOAMIDE</a>
155	99-16-1	EC Number:2027354	ALLANTOATE	<chem>NC(=O)NC(NC(N)=O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ALLANTOATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ALLANTOATE</a>
156	16649-79-9		CARBAMYLL-L-ASPARTATE	<chem>NC(=O)NC(CC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBAMYLL-L-ASPARTATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBAMYLL-L-ASPARTATE</a>

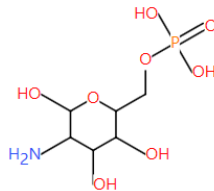
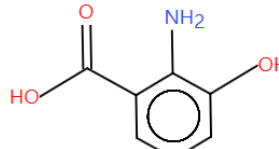
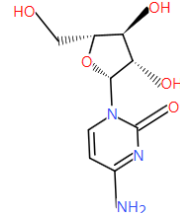
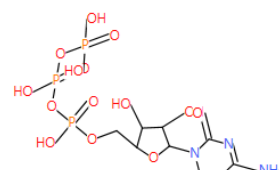
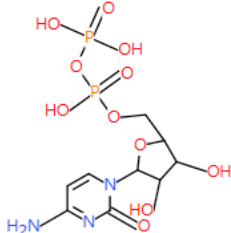
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157			CPD-1091	<chem>NC(=O)NC(O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-1091">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-1091</a>
158	462-88-4	820-838-8	3-UREIDO-PROPIONATE	<chem>NC(=O)NCC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-UREIDO-PROPIONATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-UREIDO-PROPIONATE</a>
159	590-55-6		CARBAMOYL-P	<chem>NC(=O)OP(=O)(O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBAMOYL-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBAMOYL-P</a>
160			L-ERYTHRO-4-HYDROXY-GLUTAMATE	<chem>NC(CC(O)C(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=L-ERYTHRO-4-HYDROXY-GLUTAMATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=L-ERYTHRO-4-HYDROXY-GLUTAMATE</a>
161	73-22-3	2007956	TRYPTOPHAN	<chem>N[C@@H](Cc1c[nH]c2ccccc12)C(=O)O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=TRP">https://biocyc.org/compound?orgid=HUMAN&amp;id=TRP</a>

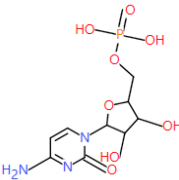
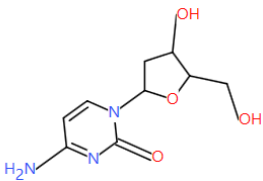
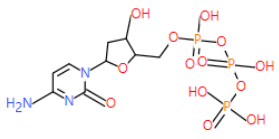
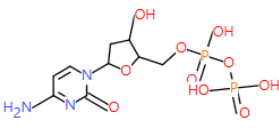
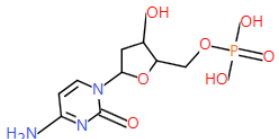
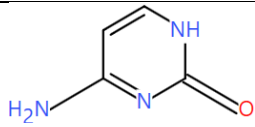
162	70-18-8		GLUTATHIONE	<chem>NC(CCC(=O)NC(CS)C(=O)NCC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLUTATHIONE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLUTATHIONE</a>
163	686-58-8		L-GAMMA-GLUTAMYL CYSTEINE	<chem>NC(CCC(=O)NC(CS)C(=O)NCC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=L-GAMMA-GLUTAMYL CYSTEINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=L-GAMMA-GLUTAMYL CYSTEINE</a>
164			CPD-548	<chem>NC(CCC(=O)NC(CSC=O)C(=O)NCC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-548">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-548</a>
165	32260-87-0		S-HYDROXYMETHYLGLUTATHIONE	<chem>NC(CCC(=O)NC(CSCO)C(=O)NCC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=S-HYDROXY METHYLGLUTATHIONE">http://biocyc.org/HUMAN/NEW-IMAGE?object=S-HYDROXY METHYLGLUTATHIONE</a>
166	27025-41-8		OXIDIZED-GLUTATHIONE	<chem>NC(CCC(=O)NC(CSSCC(=O)NCC(O)=O)C(=O)NCC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OXIDIZED-GLUTATHIONE">http://biocyc.org/HUMAN/NEW-IMAGE?object=OXIDIZED-GLUTATHIONE</a>
167			L-GLUTAMATE-5-P	<chem>NC(CCC(=O)OP(O)(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=L-GLUTAMATE-5-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=L-GLUTAMATE-5-P</a>
168			L-GLUTAMATE	<chem>NC(CCC(=O)C(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/">http://biocyc.org/HUMAN/</a>

			_GAMMA- SEMIALDEH YDE			<a href="#">NEW- IMAGE?obje ct=L- GLUTAMAT E_GAMMA- SEMIALDEH YDE</a>
169			L-ARGININO- SUCCINATE	<chem>NC(CCCN=C(N)NC(CC(O)=O)C(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=L-ARGININO-SUCCINATE">http://biocyc.org/HUMAN/ NEW- IMAGE?obje ct=L- ARGININO- SUCCINATE</a>
170	454-28-4		HOMO-CYS	<chem>NC(CCS)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HOMO-CYS">http://biocyc.org/HUMAN/ NEW- IMAGE?obje ct=HOMO- CYS</a>
171	979-92-0		ADENOSYL- HOMO-CYS	<chem>NC(CCSCC1OC(C(O)C1O)n1cnc2c(N)ncnc21)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSYL-HOMO-CYS">http://biocyc.org/HUMAN/ NEW- IMAGE?obje ct=ADENOS YL-HOMO- CYS</a>
172			5- PHOSPHORIB OSYL-N- FORMYLGLY CINEAMIDIN E	<chem>NC(CNC=O)=NC1OC(COP(O)(O)=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-PHOSPHORIBOSYL-N-FORMYLGLYCINE">http://biocyc.org/HUMAN/ NEW- IMAGE?obje ct=5- PHOSPHORI BOSYL-N- FORMYLGL YCINEAMID INE</a>
173	56-45-1	2002743	SERINE	<chem>N[C@@H](CO)C(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=SER">https://biocyc.org/compound ?orgid=HUM AN&amp;id=SER</a>

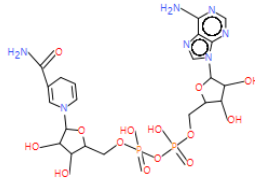
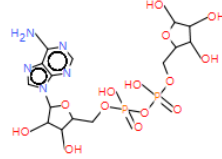
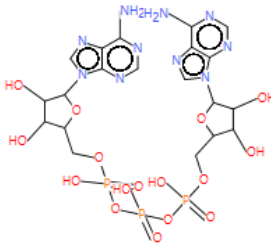
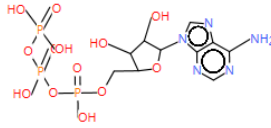
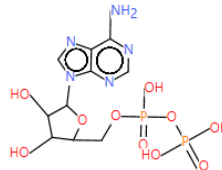
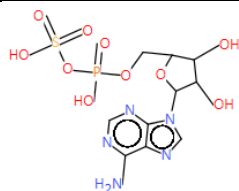
174	17885-08-4		3-P-SERINE	<chem>NC(COP(O)(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-P-SERINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-P-SERINE</a>
175	1115-65-7	2142285	3-SULFINOALANINE	<chem>N[C@@H](C[S+](O)[O-])C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-SULFINOALANINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-SULFINOALANINE</a>
176	352-97-6	2065295	GUANIDOACETIC ACID	<chem>NC(N)=NCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANIDOACETIC ACID">http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANIDOACETIC ACID</a>
177	57-13-6		UREA	<chem>NC(N)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=UREA">http://biocyc.org/HUMAN/NEW-IMAGE?object=UREA</a>
178			P-RIBOSYL-4-SUCCARBAMINOIMIDAZOLE	<chem>Nc1c(ncn1C1OC(COP(O)(O)=O)C(O)C1O)C(=O)NC(CC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=P-RIBOSYL-4-SUCCARBAMINOIMIDAZOLE">http://biocyc.org/HUMAN/NEW-IMAGE?object=P-RIBOSYL-4-SUCCARBAMINOIMIDAZOLE</a>
179	3031-94-5		AICAR	<chem>NC(=O)c1ncn(C2OC(COP(O)(O)=O)C(O)C2O)c1N</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=AICAR">http://biocyc.org/HUMAN/NEW-IMAGE?object=AICAR</a>
180			PHOSPHORIBOSYL-CARBOXYAMINOIMIDAZOLE	<chem>Nc1c(ncn1C1OC(COP(O)(O)=O)C1O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORIBOSYL-CARBOXYAMINOIMIDAZOLE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORIBOSYL-CARBOXYAMINOIMIDAZOLE</a>

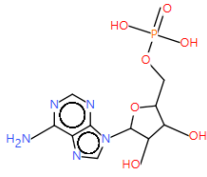
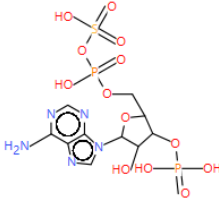
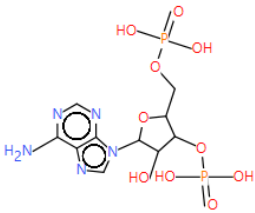
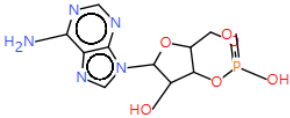
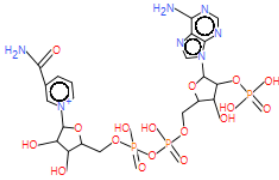
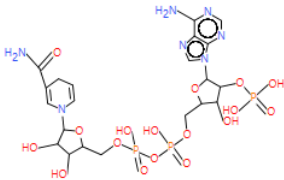
						<a href="#">CARBOXY-AMINOIMIDAZOLE</a>
181	73-24-5		ADENINE_2	<chem>Nc1ncnc2nc[nH]c12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENINE</a>
182	65-46-3	2006109	CYTIDINE	<chem>NC1C=CN([C@@H]2O[C@@H](CO)[C@@H](O)[C@H]2O)C(=O)N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CYTIDINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=CYTIDINE</a>
183	71-30-7		CCYTOSINE_2	<chem>NC1NC(=O)N=CC=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CYTOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CYTOSINE</a>
184	25635-88-5		5-PHOSPHORIBOSYL-5-AMINOIMIDAZOLE	<chem>Nc1cncn1C1OC(COP(O)(O)=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-PHOSPHORIBOSYL-5-AMINOIMIDAZOLE">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-PHOSPHORIBOSYL-5-AMINOIMIDAZOLE</a>
185	3416-24-8		GLUCOSAMINE	<chem>NC1C(O)OC(CO)C(O)C1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GLUCOSAMINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=GLUCOSAMINE</a>
186	6062-06-2		5-P-BETA-D-RIBOSYL-AMINE	<chem>NC1OC(COP(O)(O)=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-P-BETA-D-RIBOSYL-AMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-P-BETA-D-RIBOSYL-AMINE</a>

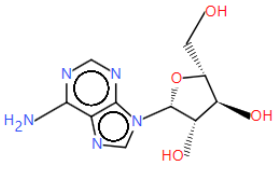
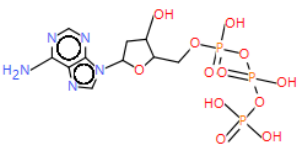
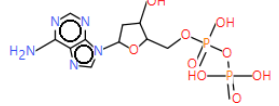
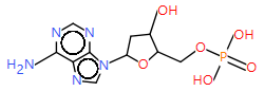
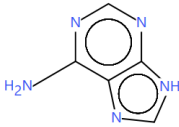
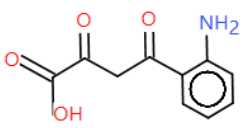
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187	3616-42-0		D-GLUCOSAMINE-6-P	<chem>NC1C(O)OC(COP(O)(O)=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=D-GLUCOSAMINE-6-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=D-GLUCOSAMINE-6-P</a>
188	548-93-6	2089625	3-HYDROXY-ANTHRANILATE	<chem>Nc1c(O)cccc1C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-HYDROXY-ANTHRANILATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-HYDROXY-ANTHRANILATE</a>
189	65-46-3	2006109	CYTIDINE_2	<chem>NC1C=CN([C@@H]2O[C@H](CO)[C@@H](O)[C@H]2O)C(=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CYTIDINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CYTIDINE</a>
190	65-47-4	200-611-4	Cytidine triphosphate	<chem>NC1C=CN(C2OC(COP(O)(=O)OP(O)(=O)OP(O)(=O)C(O)C2O)C(=O)N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CTP">https://biocyc.org/compound?orgid=HUMAN&amp;id=CTP</a>
191	63-38-7	200-557-1	Cytidine diphosphate	<chem>NC=1C=CN(C(=O)N=1)C2OC(COP(O)(=O)OP(O)(=O)C(O)C2(O)</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CDP">https://biocyc.org/compound?orgid=HUMAN&amp;id=CDP</a>

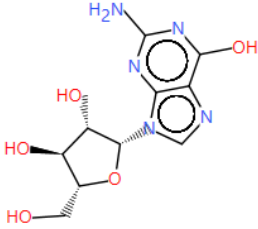
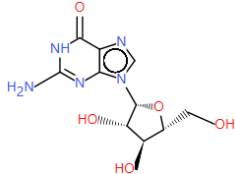
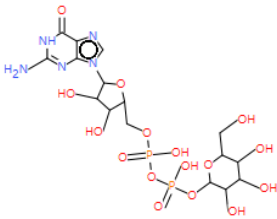
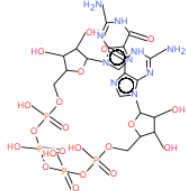
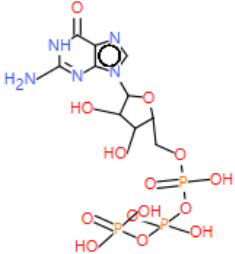
192	63-37-6	200-556-6	Cytidine monophosphate	<chem>NC1C=CN(C2OC(COP(=O)(O)O)C(O)C2O)C(=O)N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CMPP">https://biocyc.org/compound?orgid=HUMAN&amp;id=CMPP</a>
193	951-77-9		DEOXYCYTIDINE	<chem>NC1C=CN(C2CC(O)C(CO)O2)C(=O)N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DEOXYCYTIDINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=DEOXYCYTIDINE</a>
194	2056-98-6	218-153-9	Deoxycytidine triphosphate	<chem>NC=1C=CN(C(=O)N=1)C2CC(O)C(COP(=O)(O)OP(=O)(O)OP(=O)(O)O)O2</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DCTP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DCTP</a>
195	800-73-7		Deoxycytidine diphosphate	<chem>NC1C=CN(C2CC(O)C(COP(O)(=O)OP(O)(O)=O)O2)C(=O)N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DCDP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DCDP</a>
196	1032-65-1		Deoxycytidine monophosphate	<chem>NC=1C=CN(C(=O)N=1)C2CC(O)C(COP(O)(O)=O)O2</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DCMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DCMP</a>
197	71-30-7	2007495	CYTOSINE	<chem>NC1=NC(=O)NC=C1</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000630">https://hmdb.ca/metabolites/HMDB0000630</a> and <a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CYS">https://biocyc.org/compound?orgid=HUMAN&amp;id=CYS</a>

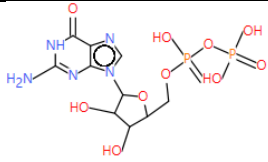
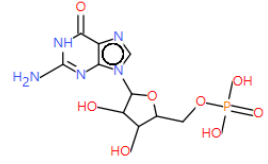
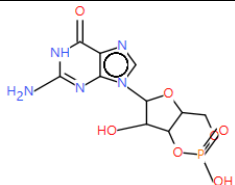
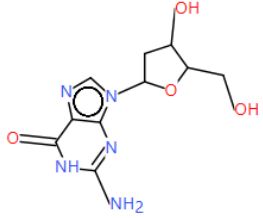
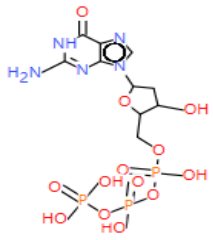
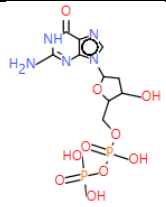
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198	1110-99-2		PHOSPHORIBOSYL-ATP	<chem>O[C@@H]1[C@@H](COP(O)(O)=O)O[C@H]([C@@H]1O)N1C=Nc2c(ncn2[C@@H]2O[C@H](COP(O)(=O)OP(O)(=O)OP(O)(O)=O)[C@@H](O)[C@H]2O)C1=N</chem>		<a href="https://hmdb.ca/metabolites/HMDB0003665">https://hmdb.ca/metabolites/HMDB0003665</a> and <a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORIBOSYL-ATP">http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORIBOSYL-ATP</a>
199	958-09-8	2134887	DEOXYADENOSINE	<chem>Nc1ncnc2c1ncn2[C@@H]1C[C@H](O)[C@H](CO)O1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DEOXYADENOSINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=DEOXYADENOSINE</a>
200	53-84-9		NADH	<chem>NC(=O)c1ccc[n+](c1)C1OC(COP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2O)n2cnc3c(N)ncnc23)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NADH">http://biocyc.org/HUMAN/NEW-IMAGE?object=NADH</a>
201	6450-77-7		DEAMIDO-NAD	<chem>Nc1ncnc2c1ncn2C1OC(COP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2O)[n+]2ccc(c2)C(O)=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DEAMIDO-NAD">http://biocyc.org/HUMAN/NEW-IMAGE?object=DEAMIDO-NAD</a>

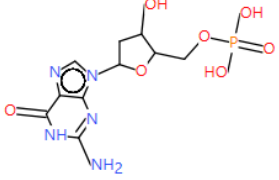
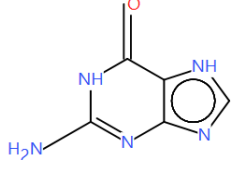
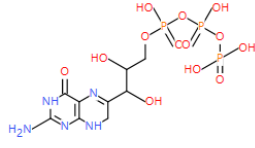
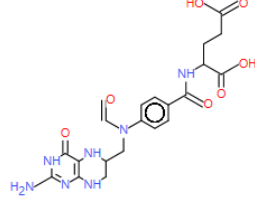
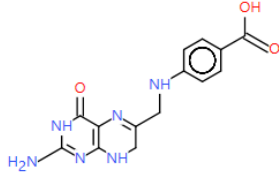
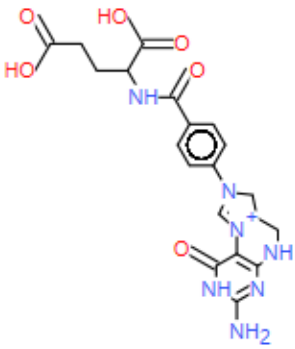
202	53-84-9		NADH	<chem>NC(=O)C1C C=CN(C=1) C1OC(COP( O)(=O)OP(O )=(O)OCC2 OC(C(O)C2 O)n2cnc3c(N )ncnc32)C(O )C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NAD">http://biocyc.org/HUMAN/NEW-IMAGE?object=NAD</a>
203	20762-30-5		ADENOSINE_DIPHOSPHATE_RIBOSE	<chem>Nc1ncnc2c1n cn2C1OC(C OP(O)(=O)O P(O)(=O)OC C2OC(O)C( O)C2O)C(O )C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSINE_DIPHOSPHATE_RIBOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSINE_DIPHOSPHATE_RIBOSE</a>
204			ADENOSINE5TRIPHOSPHATE5ADENOSINE	<chem>Nc1ncnc2c1n cn2C1OC(C OP(O)(=O)O P(O)(=O)OP( O)(=O)OCC 2OC(C(O)C2 O)n2cnc3c(N )ncnc32)C(O )C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSINE5TRIPHOSPHATE5ADENOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSINE5TRIPHOSPHATE5ADENOSINE</a>
205	56-65-5	200-283-2	Adenosine triphosphate	<chem>Nc1ncnc2c1n cn2C1OC(C OP(O)(=O)O P(O)(=O)OP( O)(O)=O)C( O)C1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ATP">https://biocyc.org/compound?orgid=HUMAN&amp;id=ATP</a>
206	58-64-0	200-392-5	Adenosine diphosphate	<chem>Nc1ncnc2c1n cn2C1OC(C OP(O)(=O)O P(O)(O)=O) C(O)C1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ADP">https://biocyc.org/compound?orgid=HUMAN&amp;id=ADP</a>
207	485-84-7		APS	<chem>Nc1ncnc2c1n cn2C1OC(C OP(O)(=O)O S(O)(=O)=O) C(O)C1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=APS">https://biocyc.org/compound?orgid=HUMAN&amp;id=APS</a>

208	61-19-8	200-500-0	Adenosine phosphate	<chem>NC3N=CN=C1C=3(N=C N1C2OC(CO P(O)(O)=O) C(O)C2(O))</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=AMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=AMP</a>
209	482-67-7		PAPS	<chem>Nc1ncnc2c1ncn2C1OC(COP(O)(=O)OS(O)(=O)=O)C(OP(O)(O)=O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PAPS">http://biocyc.org/HUMAN/NEW-IMAGE?object=PAPS</a>
210	60-92-4		PAP	<chem>Nc1ncnc2c1ncn2C1OC(COP(O)(O)=O)C(OP(O)(O)=O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PAP">http://biocyc.org/HUMAN/NEW-IMAGE?object=PAP</a>
211	60-92-4		CAMP	<chem>Nc1ncnc2c1ncn2C1OC2COP(O)(=O)OC2C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CAMP">http://biocyc.org/HUMAN/NEW-IMAGE?object=CAMP</a>
212	53-59-8		NADP	<chem>NC(=O)c1ccc[n+](c1)C1OC(COP(O)(=O)OP(O)(=O)OCC2OC(C(OP(O)(O)=O)C2O)n2cnc3c(N)ncnc32)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NADP">http://biocyc.org/HUMAN/NEW-IMAGE?object=NADP</a>
213	2646-71-1		NADPH	<chem>NC(=O)C1CC=CN(C=1)C1OC(COP(O)(=O)OP(O)(=O)OCC2OC(C(OP(O)(O)=O)C2O)n2cnc3c(N)ncnc32)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NADPH">http://biocyc.org/HUMAN/NEW-IMAGE?object=NADPH</a>

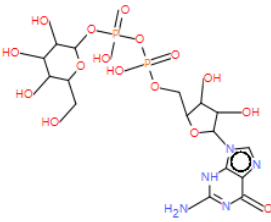
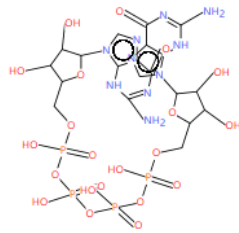
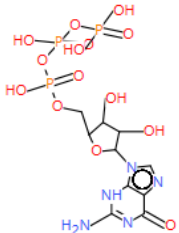
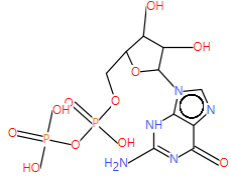
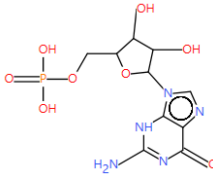
214	58-61-7	2003899	ADENOSINE	<chem>NC1=NC=N C2=C1N=C N2[C@@H] 3O[C@H](C O)[C@@H]( O)[C@H]3O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ADENOSINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=ADENOSINE</a>
215	1927-31-7	217-662-3	Deoxyadenosine triphosphate	<chem>Nc1ncnc2c1ncn2C1CC(O) C(COP(O)(=O)OP(O)(=O) OP(O)(O)=O)O1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DATP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DATP</a>
216	2793-06-8		Deoxyadenosine diphosphate	<chem>NC3=NC=N C2=C3(N=C N2(C1CC(O) C(COP(=O)( O)OP(=O)(O O)O1))</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DADP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DADP</a>
217	653-63-4	211-503-1	Deoxyadenosine monophosphate	<chem>NC3=NC=N C2=C3(N=C N2(C1CC(O) C(COP(O)(O )=O)O1))</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DAMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DAMP</a>
218	73-24-5	2007961	ADENINE	<chem>NC1C2NC=NC=2N=CN1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ADENINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=ADENINE</a>
219			CPD-476	<chem>Nc1cccc1C(=O)CC(=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-476">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-476</a>
220	118-00-3		GUANOSINE	<chem>Nc1nc(O)c2ncn([C@@H] 3O[C@H](C O)[C@@H]( O)[C@H]3O )c2n1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE</a>

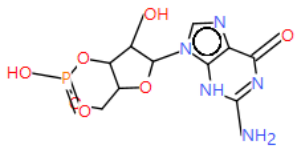
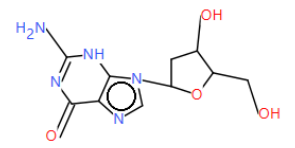
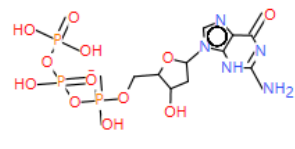
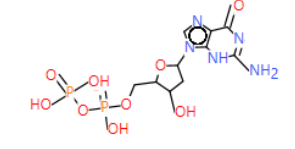
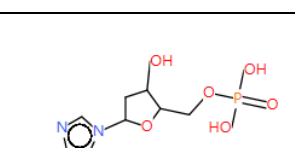

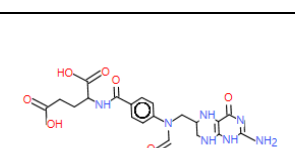
						
221	118-00-3		GUANOSINE _2	<chem>NC1NC(=O)c2ncn([C@@H]3O[C@@H](CO)[C@@H](O)[C@H]3O)c2N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANOSINE</a>
222	3123-67-9		GDP-MANNOSE_1	<chem>NC1NC(=O)c2ncn(C3OC(COP(O)(=O)OC4OC(CO)C(O)C(O)C4O)C(O)C3O)c2N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-MANNOSE_1">http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-MANNOSE_1</a>
223			CPD-609	<chem>NC1NC(=O)c2ncn(C3OC(COP(O)(=O)OP(O)(=O)OP(O)(=O)OC4OC(C(O)C4O)n4cnc5C(=O)NC(N)=Nc54)C(O)C3O)c2N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-609">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-609</a>
224	86-01-1	201-647-3	Guanosine triphosphate	<chem>NC1NC(=O)c2ncn(C3OC(COP(O)(=O)OP(O)(O)=O)C(O)C3O)c2N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GTP">https://biocyc.org/compound?orgid=HUMAN&amp;id=GTP</a>
225	146-91-8		Guanosine diphosphate	<chem>NC1NC(=O)c2ncn(C3OC</chem>		<a href="https://biocyc.org/compound">https://biocyc.org/compound</a>

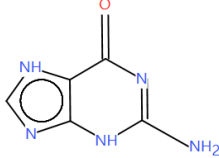
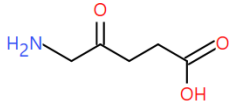
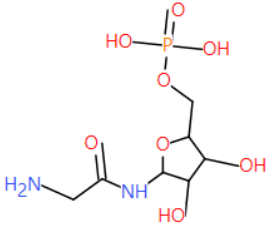
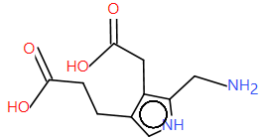
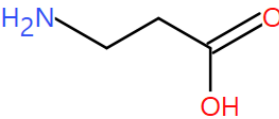
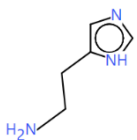
				<chem>(COP(O)(=O)OP(O)(O)=O)C(O)C3O)c2N=1</chem>		<a href="https://pubchem.ncbi.nlm.nih.gov/compound/Guanosine_diphosphate?orgid=HUMAN&amp;id=GDP">?orgid=HUMAN&amp;id=GDP</a>
226	85-32-5	201-598-8	Guanosine monophosphate	<chem>NC1NC(=O)C=2N=CN(C=2(N=1))C3OC(COP(O)(O)=O)C(O)C3(O)</chem>		<a href="https://pubchem.ncbi.nlm.nih.gov/compound/Guanosine_monophosphate?orgid=HUMAN&amp;id=GMP">https://pubchem.ncbi.nlm.nih.gov/compound?orgid=HUMAN&amp;id=GMP</a>
227	7665-99-8		CGMP	<chem>NC1NC(=O)c2ncn(C3OC4COP(O)(=O)OC4C3O)c2N=1</chem>		<a href="http://pubchem.ncbi.nlm.nih.gov/HUMAN/NEW-IMAGE?object=CGMP">http://pubchem.ncbi.nlm.nih.gov/HUMAN/NEW-IMAGE?object=CGMP</a>
228	961-07-9		DEOXYGUANOSINE	<chem>NC1NC(=O)c2ncn(C3CC(O)C(CO)O3)c2N=1</chem>		<a href="http://pubchem.ncbi.nlm.nih.gov/HUMAN/NEW-IMAGE?object=DEOXYGUANOSINE">http://pubchem.ncbi.nlm.nih.gov/HUMAN/NEW-IMAGE?object=DEOXYGUANOSINE</a>
229	2564-35-4	219-887-2	Deoxyguanosine triphosphate	<chem>NC1NC(=O)c2ncn(C3CC(O)C(COP(O)(=O)OP(O)(=O)OP(O)(O)=O)O3)c2N=1</chem>		<a href="https://pubchem.ncbi.nlm.nih.gov/compound/Deoxyguanosine_triphosphate?orgid=HUMAN&amp;id=DGTP">https://pubchem.ncbi.nlm.nih.gov/compound?orgid=HUMAN&amp;id=DGTP</a>
230	3493-09-2		Deoxyguanosine diphosphate_2	<chem>NC1NC(=O)c2ncn(C3CC(O)C(COP(O)(=O)OP(O)(O)=O)O3)c2N=1</chem>		<a href="http://pubchem.ncbi.nlm.nih.gov/HUMAN/NEW-IMAGE?object=Deoxyguanosine_diphosphate">http://pubchem.ncbi.nlm.nih.gov/HUMAN/NEW-IMAGE?object=Deoxyguanosine_diphosphate</a>

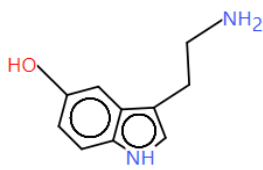
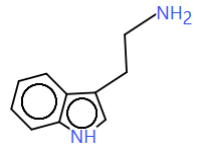
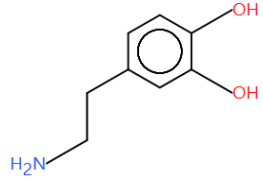
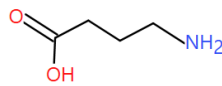
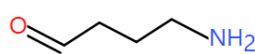
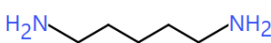
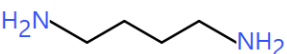
231	902-04-5	212-988-2	Deoxyguanosine monophosphate_2	<chem>NC1NC(=O)c2ncn(C3CC(O)C(COP(O)(O)=O)O3)c2N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine monophosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine monophosphate</a>
232	73-40-5		GUANINE	<chem>NC1=NC2=C(NC(=N2)C(=O)N1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GUANINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=GUANINE</a>
233			DIHYDRONEOPTERIN-P3	<chem>NC1NC(=O)C2N=C(CNC=2N=1)C(O)C(O)COP(O)(=O)OP(O)(=O)OP(O)(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DIHYDRONEOPTERIN-P3">https://biocyc.org/compound?orgid=HUMAN&amp;id=DIHYDRONEOPTERIN-P3</a>
234	2800-34-2		10-FORMYL-THF_2	<chem>NC1NC(=O)C2NC(CNC=2N=1)CN(C=O)c1ccc(cc1)C(=O)NC(CCC(O)=O)C(O)=O</chem>		<a href="https://www.hmdb.ca/metabolites/HMDB0000972">https://www.hmdb.ca/metabolites/HMDB0000972</a>
235			7-8-DIHYDROPTEROATE	<chem>NC1NC(=O)C2N=C(CNc3ccc(cc3)C(O)=O)CNC=2N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=7-8-DIHYDROPTEROATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=7-8-DIHYDROPTEROATE</a>
236	7444-29-3		5-10-METHENYL-THF	<chem>NC1NC(=O)C2=C(NCC3CN(C=[N+]32)c2ccc(cc2)C(=O)NC(CCC(O)=O)C(O)=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-10-METHENYL-THF">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-10-METHENYL-THF</a>

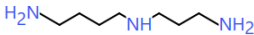
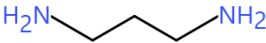
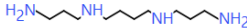
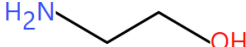
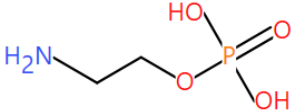
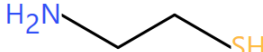
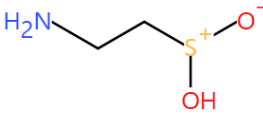
237			METHYLENE-THF	NC1NC(=O)C2N3CN(CC3CNC=2N=1)c1ccc(cc1)C(=O)NC(CC(C(O)=O)C(O)=O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=METHYLENE-THF">http://biocyc.org/HUMAN/NEW-IMAGE?object=METHYLENE-THF</a>
238	7444-29-3		5-10-METHENYL-THF_2	NC1NC2NC3CN(C=[N+])3C=2C(=O)N=1)c1ccc(cc1)C(=O)NC(CCC(O)=O)C(O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-10-METHENYL-THF">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-10-METHENYL-THF</a>
239			DIHYDRONEOPTERIN-P3_2	NC1NC2NC(=NC=2C(=O)N=1)C(O)C(O)COP(O)(=O)OP(O)(=O)OP(O)(O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDRONEOPTERIN-P3">http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDRONEOPTERIN-P3</a>
240			7-8-DIHYDROPTEROATE_2	NC2=NC(=O)C=3N=C(CNC1=CC=C(C=C1)C(=O)O)CNC=3(N2)		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=7-8-DIHYDROPTEROATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=7-8-DIHYDROPTEROATE</a>
241	118-00-3		GUANOSINE	NC1=NC2=C(N=CN2[C@@H]3O[C@@H](CO)[C@@H](O)[C@@H]3O)C(=O)N1		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GUANOSINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=GUANOSINE</a>

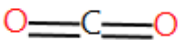
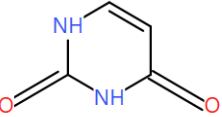
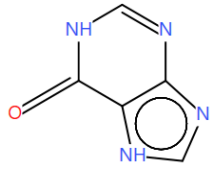
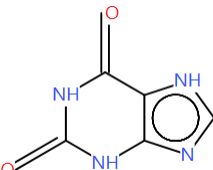
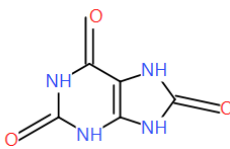
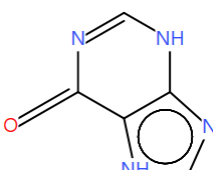
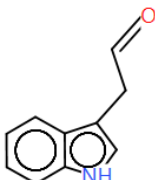
242	3123-67-9		GDP-MANNOSE_2	NC1Nc2c(ncn2C2OC(COP(O)(=O)OP(O)(=O)OC3OC(CO)C(O)C(O)C3O)C(O)C2O)C(=O)N=1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-MANNOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GDP-MANNOSE</a>
243			CPD-609_2	NC1Nc2c(ncn2C2OC(COP(O)(=O)OP(O)(=O)OP(O)(=O)OP(O)(=O)OCC3OC(C(O)C3O)n3cnc4C(=O)N=C(N)Nc34)C(O)C2O)C(=O)N=1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-609">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-609</a>
244	86-01-1	201-647-3	Guanosine triphosphate_2	NC1Nc2c(ncn2C2OC(COP(O)(=O)OP(O)(=O)OP(O)(=O)C(O)C2O)C(=O)N=1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Guanosine triphosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Guanosine triphosphate</a>
245			[5-(2-amino-6-oxo-1H-purin-9-yl)-3,4-dihydroxyoxolan-2-yl]methyl phosphono hydrogen phosphate	NC1Nc2c(ncn2C2OC(COP(O)(=O)OP(O)(O)=O)C(O)C2O)C(=O)N=1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Guanosine diphosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Guanosine diphosphate</a>
246	83-32-5	201-598-8	Guanosine monophosphate_2	NC1Nc2c(ncn2C2OC(COP(O)(O)=O)C(O)C2O)C(=O)N=1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Guanosine monophosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Guanosine monophosphate</a>
247	7665-99-8		961-07-9	NC1Nc2c(ncn2C2OC3CO		<a href="http://biocyc.org/HUMAN/">http://biocyc.org/HUMAN/</a>

				<chem>P(O)(=O)OC3C2O)C(=O)N=1</chem>		<a href="#">NEW-IMAGE?object=GUANOSINE</a>
248	961-07-9		DEOXYGUANOSINE_2	<chem>NC1Nc2c(ncn2C2CC(O)C(CO)O2)C(=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYGUANOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYGUANOSINE</a>
249	2564-35-4	219-887-2	Deoxyguanosine triphosphate_2	<chem>NC2=NC(=O)C=3N=CN(C1CC(O)C(COP(=O)(O)OP(=O)(O)OP(=O)(O)O1)C=3(N2)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine triphosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine triphosphate</a>
250	3493-09-2		Deoxyguanosine diphosphate	<chem>NC2NC(=O)C=3N=CN(C1CC(O)C(COP(=O)(O)OP(=O)(O)O1)C=3(N=2)</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DGD P">https://biocyc.org/compound?orgid=HUMAN&amp;id=DGD P</a>
251	902-04-5	212-988-2	Deoxyguanosine monophosphate	<chem>NC2NC(=O)C=3N=CN(C1CC(O)C(COP(=O)(O)O1)C=3(N=2)</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-12365">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-12365</a>
252			METHYLENE-THF_2	<chem>[H]C24(CNC=1NC(N)=NC(=O)C=1N4(CN(C2)C3=CC=C(C=C3)C(=O)NC(CCC(=O)O)C(=O)O))</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=METHYLENE-THF">https://biocyc.org/compound?orgid=HUMAN&amp;id=METHYLENE-THF</a>
253	28000-34-2		10-FORMYL-THF	<chem>NC1NC(=O)C=2NC(CNC=2(N=1))CN(C(=O)C3=C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?obje">http://biocyc.org/HUMAN/NEW-IMAGE?obje</a>

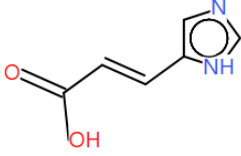
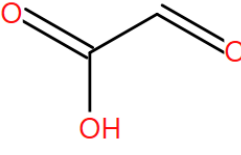
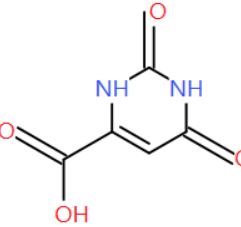
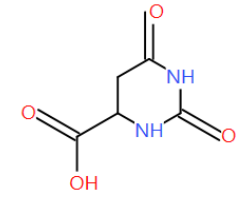
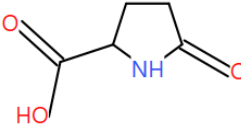
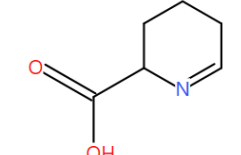
				<chem>C=C(C=C3)C(=O)NC(CCC(=O)O)C(=O)O</chem>		<a href="#">ct=10-FORMYL-THF</a>
254	73-40-5		GUANINE_2	<chem>NC1NC2=C(NC=N2)C(=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GUANINE</a>
255	106-60-5	2034141	5-AMINO-LEVULINATE	<chem>NCC(=O)CC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-AMINO-LEVULINATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-AMINO-LEVULINATE</a>
256			5-PHOSPHORIBOSYLGLYCINEAMIDE	<chem>NCC(=O)NC1OC(COP(=O)(O)C(O)C1O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-PHOSPHORIBOSYLGLYCINEAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-PHOSPHORIBOSYLGLYCINEAMIDE</a>
257	487-90-1		PORPHOBILINOGEN	<chem>NCC=1NC=C(CCCC(=O)O)C=1(CC(=O)O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PORPHOBILINOGEN">http://biocyc.org/HUMAN/NEW-IMAGE?object=PORPHOBILINOGEN</a>
258	107-95-9		B-ALANINE	<chem>NCCC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=B-ALANINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=B-ALANINE</a>
259	51-45-6		HISTAMINE	<chem>NCCC1=CN=CN1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HISTAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HISTAMINE</a>

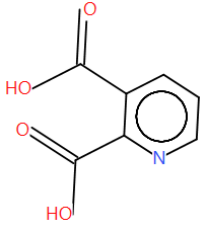
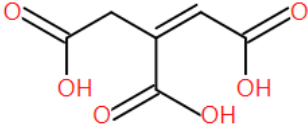
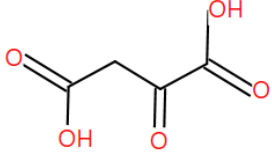
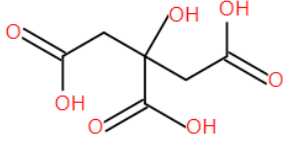
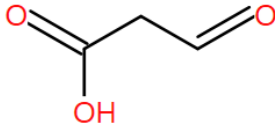
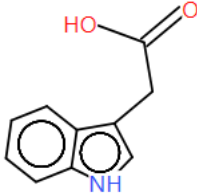
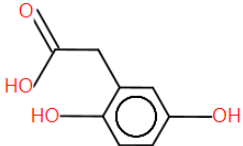
260	50-67-9	2000589	SEROTONIN	<chem>NCCc1c[nH]c2ccc(O)cc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SEROTONIN">http://biocyc.org/HUMAN/NEW-IMAGE?object=SEROTONIN</a>
261	61-54-1	2005105	TRYPTAMINE	<chem>NCCc1c[nH]c2ccccc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=TRYPTAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=TRYPTAMINE</a>
262	51-61-6	2001100	DOPAMINE	<chem>NCCc1ccc(O)c(O)c1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DOPAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DOPAMINE</a>
263	56-12-2	2002586	4-AMINO-BUTYRATE	<chem>NCCCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=4-AMINO-BUTYRATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=4-AMINO-BUTYRATE</a>
264	4390-05-0		4-AMINO-BUTYRALDEHYDE	<chem>NCCCC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=4-AMINO-BUTYRALDEHYDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=4-AMINO-BUTYRALDEHYDE</a>
265	462-94-2	2073290	CADAVERINE	<chem>NCCCCCN</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CADAVERINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CADAVERINE</a>
266	110-60-1	2037823	PUTRESCINE	<chem>NCCCCN</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PUTRESCINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PUTRESCINE</a>
267	124-20-9	2046890	SPERMIDINE	<chem>NCCCCNCCN</chem>		<a href="http://biocyc.org/HUMAN/">http://biocyc.org/HUMAN/</a>

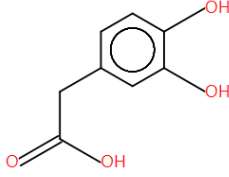
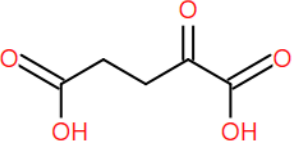
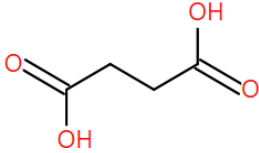
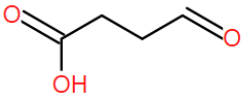
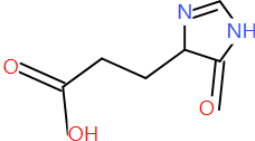
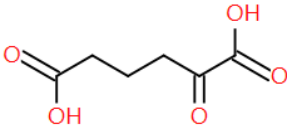
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269	71-44-3	2007542	SPERMINE	NCCCNCCC CNCCCN		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SPERMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=SPERMINE</a>
270	141-43-5	2054833	ETHANOL-AMINE	NCCO		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ETHANOL-AMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ETHANOL-AMINE</a>
271	1071-23-4	2139885	PHOSPHORYL-ETHANOLAMINE	NCCOP(O)(O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORYL-ETHANOLAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PHOSPHORYL-ETHANOLAMINE</a>
272	60-23-1	2004630	CPD-239	NCCS		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-239">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-239</a>
273	300-84-5		HYPOTAURINE	NCC[S+](O)[O-]		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HYPOTAURINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HYPOTAURINE</a>
274	7732-18-5	2317912	Water	[OH2]	<b>OH<sub>2</sub></b>	<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=WATER">https://biocyc.org/compound?orgid=HUMAN&amp;id=WATER</a>

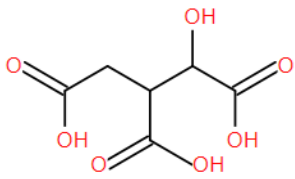
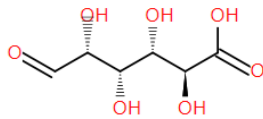
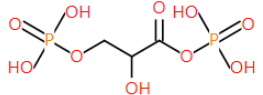
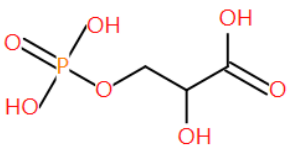
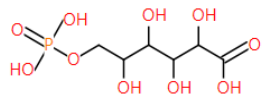
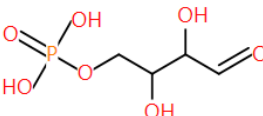
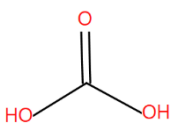
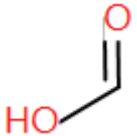
275	124-38-9		CARBON-DIOXIDE	O=C=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBON-DIOXIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CARBON-DIOXIDE</a>
276	66-22-8	2006219	URACIL	O=C1NC=CC(=O)N1		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=URACIL">https://biocyc.org/compound?orgid=HUMAN&amp;id=URACIL</a>
277	68-94-0	2006973	HYPOXANTHINE	O=C1NC=NC=2N=CNC1=2		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HYPOXANTHINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HYPOXANTHINE</a>
278	69-89-6	2007186	XANTHINE	O=C1NC(=O)c2[nH]cnc2N1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=XANTHINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=XANTHINE</a>
279	69-93-2	2007207	URATE	O=C1NC(=O)C=2NC(=O)NC=2(N1)		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=URATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=URATE</a>
280	68-94-0		HYPOXANTHINE_2	O=C1N=CN=C=2N=CNC1=2		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HYPOXANTHINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HYPOXANTHINE</a>
281	2591-98-2		INDOLE_2	O=CCC1=CN=C2C=CC=C12		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=INDOLE">http://biocyc.org/HUMAN/NEW-IMAGE?object=INDOLE</a>

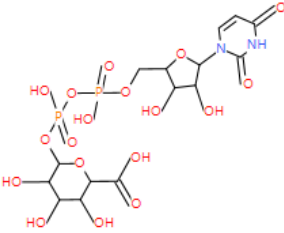
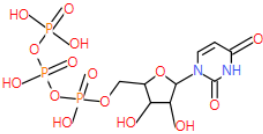
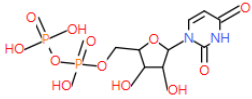
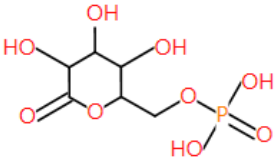
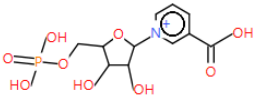
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282	7782-44-7		OXYGEN-MOLECULE	O=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OXYGEN-MOLECULE">http://biocyc.org/HUMAN/NEW-IMAGE?object=OXYGEN-MOLECULE</a>
283	5801-57-0		ENOL-PHENYLPYRUVATE	O=C(O)C(O)=CC1=CC=C1C=C1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ENOL-PHENYLPYRUVATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ENOL-PHENYLPYRUVATE</a>
284	156-06-9	EC Number:2058471	PHENYL-PYRUVATE	O=C(O)C(=O)CC1=CC=CC=C1		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PHENYL-PYRUVATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PHENYL-PYRUVATE</a>
285	3913-50-6		3-P-HYDROXYPYRUVATE	O=C(O)C(=O)COP(=O)(O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=3-P-HYDROXYPYRUVATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=3-P-HYDROXYPYRUVATE</a>
286			23-DIPHOSPHOGLYCERATE	OC(=O)C(COP(=O)(O)O)OP(=O)(O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=23-DIPHOSPHOGLYCERATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=23-DIPHOSPHOGLYCERATE</a>
287	434-13-9		Lithocholic acid	C[C@H](CC(C(O)=O)[C@H]1CC[C@H]2[C@@H]3CC[C@H]4[C@H](O)CC[C@@]4(C)[C@H]3CC[C@]12C		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-7235">https://biocyc.org/compound?orgid=HUMAN&amp;id=CPD-7235</a>

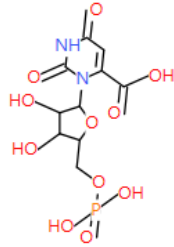
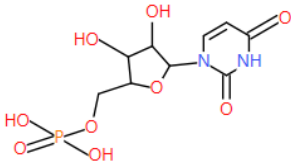
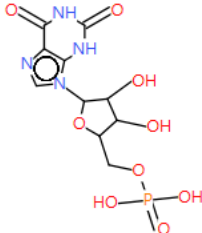
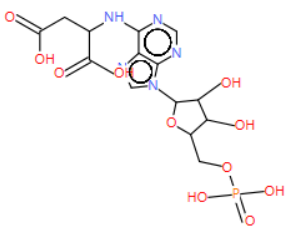
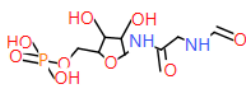
288	104-98-3		UROCANATE	<chem>O=C(O)C=C1=CN=CN1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=UROCANATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=UROCANATE</a>
289	298-12-4	2060585	GLYOX	<chem>OC(=O)C=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYOX">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYOX</a>
290	65-86-1	2006198	OROTATE	<chem>O=C(O)C1=CC(=O)NC(=O)N1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OROTATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=OROTATE</a>
291	155-54-4		DI-H-OROTATE	<chem>OC(=O)C1C(=O)NC(=O)N1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DI-H-OROTATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DI-H-OROTATE</a>
292	98-79-3	2027003	DI-H-OROTATE	<chem>OC(=O)C1C(=O)NC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DI-H-OROTATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DI-H-OROTATE</a>
293			CPD-7682	<chem>O=C(O)C1C=CC=CN1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-7682">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-7682</a>
294	89-00-9	2018748	Quinolate	<chem>OC(=O)c1cccnc1C(=O)O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=QUINOLINATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=QUINOLINATE</a>

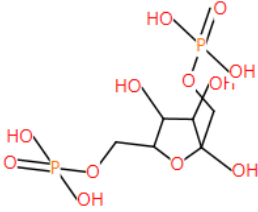
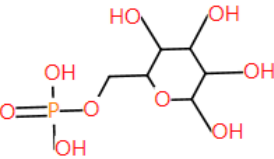
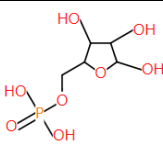
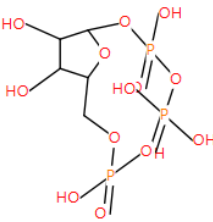
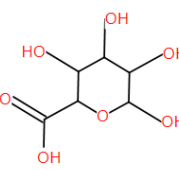
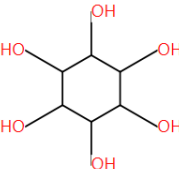
						
295	585-84-2		CIS-ACONITATE	<chem>O=C(O)C=C(CC(=O)O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CIS-ACONITATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CIS-ACONITATE</a>
296	328-42-7	2063298	CIS-ACONITATE	<chem>OC(=O)CC(=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CIS-ACONITATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=CIS-ACONITATE</a>
297	77-92-9	2010691	CIT	<chem>OC(=O)CC(O)(CC(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CIT">http://biocyc.org/HUMAN/NEW-IMAGE?object=CIT</a>
298	926-61-4		MALONATE-S-ALD	<chem>OC(=O)CC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=MALONATE-S-ALD">http://biocyc.org/HUMAN/NEW-IMAGE?object=MALONATE-S-ALD</a>
299	87-51-4	2017482	INDOLE_ACETATE_AUXIN	<chem>O=C(O)CC1=CNC2=CC=CC=C12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=INDOLE_ACETATE_AUXIN">http://biocyc.org/HUMAN/NEW-IMAGE?object=INDOLE_ACETATE_AUXIN</a>
300	451-13-8	207-192-7	HOMOGENTISATE	<chem>O=C(O)CC1C=C(O)C=CC1(O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HOMOGENTISATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HOMOGENTISATE</a>

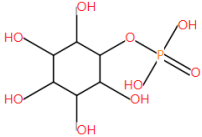
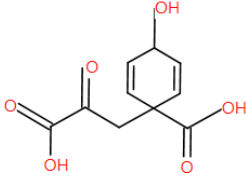
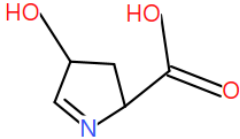
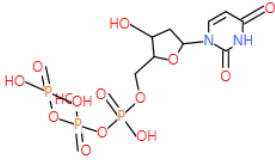
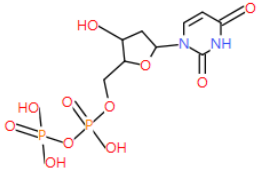
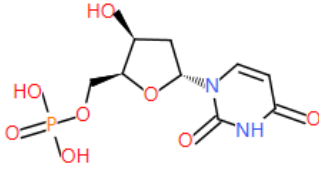
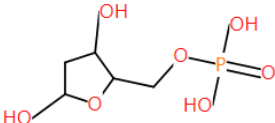
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301	102-32-9	2030241	CPD-782	<chem>OC(=O)Cc1ccc(O)c(O)c1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-782">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-782</a>
302	328-50-7	2063303	2-KETOGLUTARATE	<chem>O=C(O)CCC(=O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2-KETOGLUTARATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=2-KETOGLUTARATE</a>
303	110-15-6	2037404	SUC	<chem>O=C(O)CCC(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SUC">http://biocyc.org/HUMAN/NEW-IMAGE?object=SUC</a>
304	692-29-5		SUCC-S-ALD	<chem>O=C(C)CCC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SUCC-S-ALD">http://biocyc.org/HUMAN/NEW-IMAGE?object=SUCC-S-ALD</a>
305	17340-16-8		4-IMIDAZOLONE-5-PROPIONATE	<chem>OC(=O)CCCN1C=NC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=4-IMIDAZOLONE-5-PROPIONATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=4-IMIDAZOLONE-5-PROPIONATE</a>
306	3184-35-8		2K-ADIPATE	<chem>OC(=O)CCCC(=O)C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2K-ADIPATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=2K-ADIPATE</a>

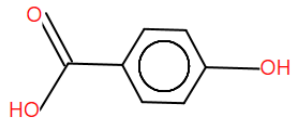
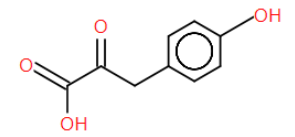
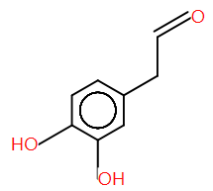
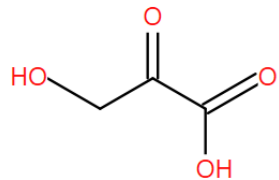
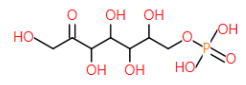
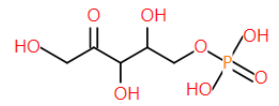
307	320-77-4	2062823	THREO-DS-ISO-CITRATE	<chem>OC(C(CC(O)=O)C(O)=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=THREO-DS-ISO-CITRATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=THREO-DS-ISO-CITRATE</a>
308	576-37-4	2094017	GLUCURONIC ACID	<chem>O[C@@H](C=O)[C@@H](O)[C@H](O)[C@H](O)C(O)=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GLUCURONATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=GLUCURONATE</a>
309	1981-49-3		DPG	<chem>[H]C(O)(COP(=O)(O)O)C(=O)OP(=O)(O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DPG">http://biocyc.org/HUMAN/NEW-IMAGE?object=DPG</a>
310	820-11-1		G3P	<chem>OC(COP(=O)(O)O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=G3P">http://biocyc.org/HUMAN/NEW-IMAGE?object=G3P</a>
311			CPD-2961	<chem>OC(COP(=O)(O)O)C(O)C(O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-2961">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-2961</a>
312	585-18-2		ERYTHROSE-4P	<chem>OC(COP(=O)(O)O)C(O)C=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ERYTHROSE-4P">http://biocyc.org/HUMAN/NEW-IMAGE?object=ERYTHROSE-4P</a>
313	463-79-6		H2CO3	<chem>OC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=H2CO3">http://biocyc.org/HUMAN/NEW-IMAGE?object=H2CO3</a>
314	64-18-6		FORMATE	<chem>OC=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FORMATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=FORMATE</a>

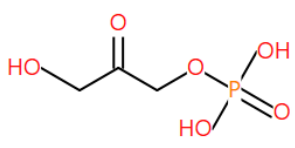
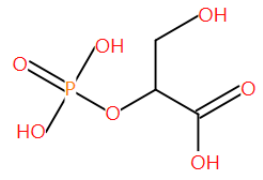
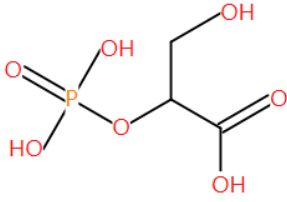
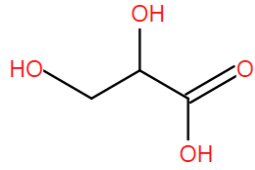
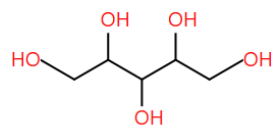
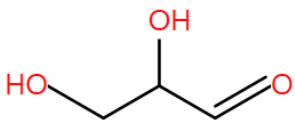
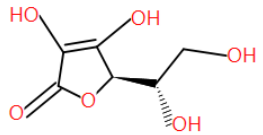
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315	2616-64-0		UDP-GLUCURONATE	<chem>OC1C(COP(O)(=O)OP(O)(=O)OC2OC(C(O)C(O)C2O)C(O)=O)OC(C1O)N1C=CC(=O)NC1=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=UDP-GLUCURONATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=UDP-GLUCURONATE</a>
316	63-39-8	200-558-7	Uridine triphosphate	<chem>O=C1C=NC(C(=O)N1)C2OC(COP(O)(=O)OP(O)(=O)OP(O)(O)=O)C(O)C2(O)</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=UTP">https://biocyc.org/compound?orgid=HUMAN&amp;id=UTP</a>
317	58-98-0	200-409-6	Uridine diphosphate	<chem>OC1C(COP(O)(=O)OP(O)(O)=O)OC(C1O)N1C=CC(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=UDP">https://biocyc.org/compound?orgid=HUMAN&amp;id=UDP</a>
318	2641-81-8		D-6-P-GLUCONO-DELTA-LACTONE	<chem>OC1C(O)C(COP(O)(O)=O)OC(=O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=D-6-P-GLUCONO-DELTA-LACTONE">http://biocyc.org/HUMAN/NEW-IMAGE?object=D-6-P-GLUCONO-DELTA-LACTONE</a>
319	321-02-8		NICOTINATE_NUCLEOTIDE	<chem>OC1C(COP(O)(O)=O)OC(C1O)[n+]1ccc(c1)C(=O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=NICOTINATE_NUCLEOTIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=NICOTINATE_NUCLEOTIDE</a>
320	2149-82-8		OROTIDINE-5-PHOSPHATE	<chem>OC1C(O)C(OC1COP(O)(O)=O)N1C(=O)NC(=O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OROTIDINE-5-PHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=OROTIDINE-5-PHOSPHATE</a>

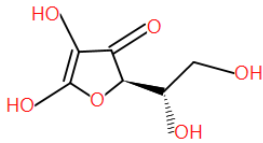
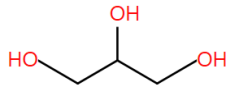
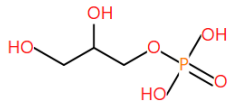
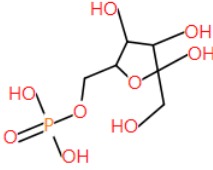
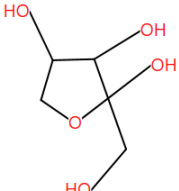
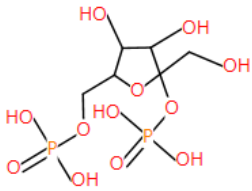
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321	58-97-9	200-408-0	Uridine monophosphate	<chem>O=C1C=CN(C(=O)N1)C2OC(COP(O)(O)=O)C(O)C2(O)</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=UMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=UMP</a>
322	523-98-8		XANTHOSINE-5-PHOSPHATE	<chem>OC1C(COP(O)(O)=O)OC(C1O)n1cnc2C(=O)NC(=O)Nc21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=XANTHOSINE-5-PHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=XANTHOSINE-5-PHOSPHATE</a>
323	19240-42-7		ADENYLOSUCC	<chem>OC1C(COP(O)(O)=O)OC(C1O)n1cnc2c(NC(CC(O)=O)C(O)=O)ncn21</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENYLOSUCC">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENYLOSUCC</a>
324	349-34-8		5-P-RIBOSYL-N-FORMYLGLYCINEAMIDE	<chem>OC1C(O)C(NC(=O)CNC(=O)OC1COP(O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-P-RIBOSYL-N-FORMYLGLYCINEAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-P-RIBOSYL-N-FORMYLGLYCINEAMIDE</a>
325	488-69-7		FRUCTOSE-16-DIPHOSPHATE	<chem>OC1C(O)C(O)(COP(O)(O)=O)OC1COP(O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object">http://biocyc.org/HUMAN/NEW-IMAGE?object</a>

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326	3672-15-9		MANNOSE-6P	OC1OC(COP(O)(O)=O)C(O)C(O)C1O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=MANNOSE-6P">http://biocyc.org/HUMAN/NEW-IMAGE?object=MANNOSE-6P</a>
327	4300-28-1		RIBOSE-5P	OC1OC(COP(O)(O)=O)C(O)C1O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=RIBOSE-5P">http://biocyc.org/HUMAN/NEW-IMAGE?object=RIBOSE-5P</a>
328	13270-65-0		PRPP	OC1C(O)C(OC1COP(O)(O)=O)OP(O)(=O)OP(O)(O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PRPP">http://biocyc.org/HUMAN/NEW-IMAGE?object=PRPP</a>
329	576-37-4		GLUCURONATE	OC1OC(C(O)C(O)C1O)C(O)=O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLUCURONATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLUCURONATE</a>
330	87-89-8		MYO-INOSITOL	OC1C(O)C(O)C(O)C(O)C1O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=MYO-INOSITOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=MYO-INOSITOL</a>
331	46495-39-0		D-MYO-INOSITOL-4-PHOSPHATE	OC1C(O)C(O)C(OP(O)(O)=O)C(O)C1O		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=D-MYO-INOSITOL-4-PHOSPHATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=D-MYO-INOSITOL-4-PHOSPHATE</a>

						<a href="#">MYO-INOSITOL-4-PHOSPHATE</a>
332	126-49-8		PREPHENATE	<chem>OC1C=CC(C(=O)C(O)=O)(C=C1)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PREPHENATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PREPHENATE</a>
333	22573-88-2		PYRROLINE-HYDROXY-CARBOXYLATE	<chem>OC1CC(N=C1)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRROLINE-HYDROXY-CARBOXYLATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=PYRROLINE-HYDROXY-CARBOXYLATE</a>
334	1173-82-6		Deoxyuridine triphosphate	<chem>OC1CC(OC1COP(O)(=O)OP(O)(=O)OP(O)(O)=O)N1C=CC(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DUTP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DUTP</a>
335	4208-67-7		Deoxyuridine diphosphate	<chem>OC1CC(OC1COP(O)(=O)OP(O)(O)=O)N1C=CC(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DUDP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DUDP</a>
336	964-26-1		Deoxyuridine monophosphate	<chem>O[C@H]1C[C@@H](O[C@H]1CO)P(O)(O)=O</chem> <chem>N1C=CC(=O)NC1=O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=DUMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=DUMP</a>
337	102916-66-5		DEOXY-RIBOSE-5P	<chem>OC1CC(O)C(COP(O)(O)=O)O1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?obje">http://biocyc.org/HUMAN/NEW-IMAGE?obje</a>

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338	99-96-7	2028049	4-hydroxybenzoate	<chem>OC(=O)c1ccc(O)cc1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=4-hydroxybenzoate">http://biocyc.org/HUMAN/NEW-IMAGE?object=4-hydroxybenzoate</a>
339	156-39-8	2058529	P-HYDROXY-PHENYLPYRUVATE	<chem>OC(=O)C(=O)Cc1ccc(O)cc1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=P-HYDROXY-PHENYLPYRUVATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=P-HYDROXY-PHENYLPYRUVATE</a>
340			34-DIHYDROXYPHENYLACETALDEHYDE	<chem>Oc1ccc(CC=O)cc1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=34-DIHYDROXYPHENYLACETALDEHYDE">https://biocyc.org/compound?orgid=HUMAN&amp;id=34-DIHYDROXYPHENYLACETALDEHYDE</a>
341	1113-60-6		OH-PYR	<chem>OCC(=O)C(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=OH-PYR">http://biocyc.org/HUMAN/NEW-IMAGE?object=OH-PYR</a>
342	2646-35-7		D-SEDOHEPTULOSE-7-P	<chem>OCC(=O)C(O)C(O)C(O)C(O)COP(=O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=D-SEDOHEPTULOSE-7-P">http://biocyc.org/HUMAN/NEW-IMAGE?object=D-SEDOHEPTULOSE-7-P</a>
343	60802-29-1		XYLULOSE-5-PHOSPHATE	<chem>OCC(=O)C(O)C(O)COP(=O)(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=XYLULOSE-5-PHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=XYLULOSE-5-PHOSPHATE</a>


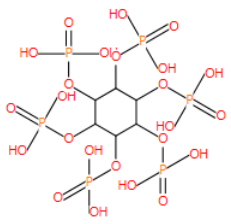
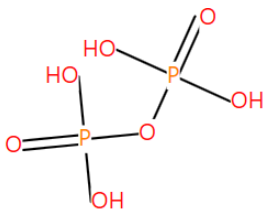
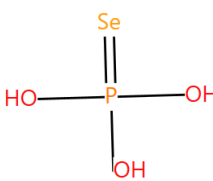
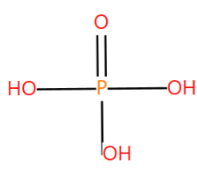
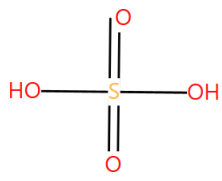
344	57-04-5	2003087	DIHYDROXY-ACETONE-PHOSPHATE	$\text{OCC(=O)CO}$ $\text{P(O)(O)=O}$		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDROXY-ACETONE-PHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDROXY-ACETONE-PHOSPHATE</a>
345	2553-59-5		2-PG	$\text{OCC(OP(O)(O)=O)C(O)=O}$		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2-PG">http://biocyc.org/HUMAN/NEW-IMAGE?object=2-PG</a>
346	79-14-1	2011805	GLYCOLLATE	$\text{OCC(=O)O}$		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCOLLATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCOLLATE</a>
347	6000-40-4		GLYCERATE	$[\text{H}]\text{C(O)(CO)}$ $\text{C(=O)O}$		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCERATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCERATE</a>
348	87-99-0		XYLITOL	$\text{OCC(O)C(O)}$ $\text{C(O)CO}$		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=XYLITOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=XYLITOL</a>
349	367-47-5		GLYCERALD	$\text{OCC(O)C=O}$		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCERALD">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCERALD</a>
350	50-81-7		ASCORBIC ACID	$\text{OC}[\text{C}@\text{H}](\text{O})$ $[\text{C}@\text{H}]\text{OC(=O)C(O)=C1}$ $\text{O}$		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ASCORBATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=ASCORBATE</a>

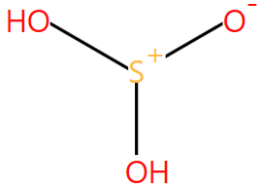
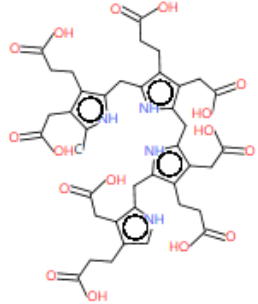
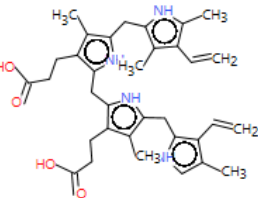
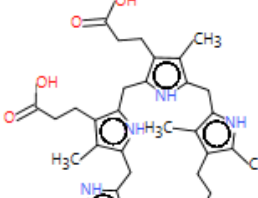
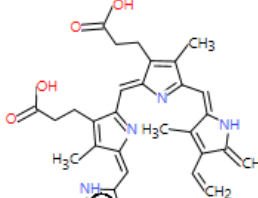
351	50-81-7	2000662	ASCORBATE	<chem>[H]C(O)(CO)C1([H])(OC(O)=C(O)C1(=O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ASCORBATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ASCORBATE</a>
352	56-81-5	2002895	GLYCEROL	<chem>OCC(O)CO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCEROL">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCEROL</a>
353	57-03-4	2003071	GLYCEROL-3P	<chem>[H]C(O)(CO)COP(=O)(O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCEROL-3P">http://biocyc.org/HUMAN/NEW-IMAGE?object=GLYCEROL-3P</a>
354	643-13-0		FRUCTOSE-6P	<chem>OCC1(O)OC(COP(=O)(O)O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FRUCTOSE-6P">http://biocyc.org/HUMAN/NEW-IMAGE?object=FRUCTOSE-6P</a>
355	551-84-8		D-XYLULOSE	<chem>[H]C1(O)(COC(O)(CO)C1([H])(O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=D-XYLULOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=D-XYLULOSE</a>
356			CPD-535	<chem>[H]C1(O)(C([H])(O)C(CO)(OC1([H])(COP(=O)(O)O))OP(=O)(O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-535">http://biocyc.org/HUMAN/NEW-IMAGE?object=CPD-535</a>

357	73023-76-4		HYDROXYMETHYLBILANE	<chem>OCC=4NC(C=C)3NC(CC=2NC(CC=1NC=C(CCC(=O)O)C=1(CC(=O)O))=C(CCC(=O)O)C=2(CC(=O)O))=C(CCC(=O)O)C=3(C=C(=O)O)=C(CCC(=O)O)C=4(CC(=O)O)O)</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HYDROXYMETHYLBILANE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HYDROXYMETHYLBILANE</a>
358	58-96-8	004075	URIDINE	<chem>OC[C@H]1O[C@@H](N2C=CC(=O)NC2=O)[C@H](O)[C@@H]1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=URIDINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=URIDINE</a>
359	58-63-9		INOSINE	<chem>[H]C3(CO)C(OC([H])(N2C=NC=1C(=O)NC=NC=12)C([H])(O)C3([H])(O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=INOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=INOSINE</a>
360	146-80-5		XANTHOSINE	<chem>[H]C3(CO)C(OC([H])(N2C=NC=1C(=O)NC(=O)N1)C([H])(O)C3([H])(O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=XANTHOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=XANTHOSINE</a>
361	58-63-9		INOSINE_2	<chem>[H]C3(CO)C(OC([H])(N2C=NC=1C(=O)N=CNC=12)C([H])(O)C3([H])(O))</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=INOSINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=INOSINE</a>

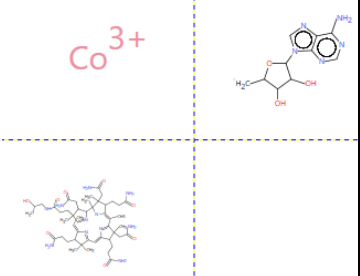
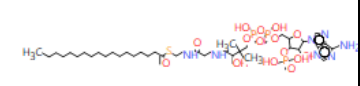
362	50-99-7		D-GLUCOSE	<chem>OC[C@H]1OC(O)[C@H](O)[C@@H](O)[C@@H]1O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GLC">https://biocyc.org/compound?orgid=HUMAN&amp;id=GLC</a>
363	57-50-1		SUCROSE	<chem>[H]C2(O)(C([H])(O)C([H])(CO)OC([H])(OC1(CO)(OC([H])(CO)C([H])(O)C1([H])(O)))C2([H])(O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SUCROSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=SUCROSE</a>
364	99-20-7		TREHALOSE	<chem>[H]C2(O)(C([H])(O)C([H])(CO)OC([H])(OC1([H])(OC([H])(CO)C([H])(O)C1([H])(O)C1([H])(O)))C2([H])(O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=TREHALOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=TREHALOSE</a>
365	585-99-9		MELIBIOSE	<chem>[H]C2(O)(C(O)OC([H])(COC1([H])(OC([H])(CO)C([H])(O)C1([H])(O)C1([H])(O)))C([H])(O)C2([H])(O))</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=MELIBIOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=MELIBIOSE</a>
366	2956-16-3		UDP-GALACTOSE	<chem>OCC1OC(OP(O)(=O)OP(O)(=O)OCC2OC(C(O)C2(O)N2C=CC(=O)NC2=O)C(O)C1O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=UDP-GALACTOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=UDP-GALACTOSE</a>

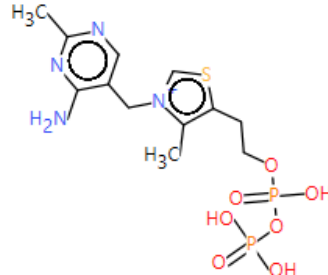
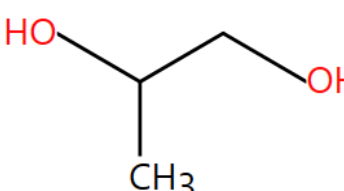
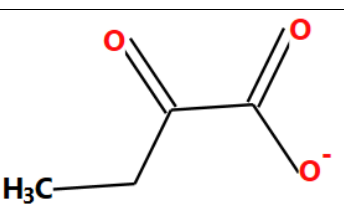
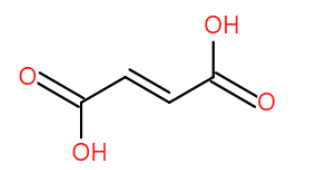
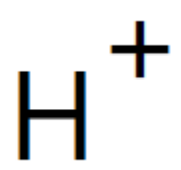
367	2255-14-3		GALACTOSE-1P	[H]C1(O)(C([H])(O)C([H])(CO)OC([H])(OP(=O)(O)O)C1([H])(O)))		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=GALACTOSE-1P">http://biocyc.org/HUMAN/NEW-IMAGE?object=GALACTOSE-1P</a>
368	951-78-0		DEOXYURIDINE	[H]C1(O)(C(C([H])(OC1([H])(CO))N2C=CC(=O)NC2(=O)))		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYURIDINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYURIDINE</a>
369	890-38-0		DEOXYINOSINE	[H]C1(O)(C(C([H])(OC1([H])(CO))N3C=NC=2C(=O)NC=NC=23))		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYINOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYINOSINE</a>
370	890-38-0		DEOXYINOSINE_2	[H]C1(O)(C(C([H])(OC1([H])(CO))N3C=NC=2C(=O)N=CNC=23))		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYINOSINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXYINOSINE</a>
371	17210-42-3		DEOXY-RIBOSE-1P	[H]C1(O)(C(C(OC1([H])(CO))OP(=O)(O)O))		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXY-RIBOSE-1P">http://biocyc.org/HUMAN/NEW-IMAGE?object=DEOXY-RIBOSE-1P</a>
372	69-79-4		MALTOSE	[H]C2(O)(C(O)OC([H])(C(O)C([H])(OC1([H])(OC([H])(CO)C([H])(O)C([H])(O)C1([H])(O)))C2([H])(O)))		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=MALTOSE">http://biocyc.org/HUMAN/NEW-IMAGE?object=MALTOSE</a>

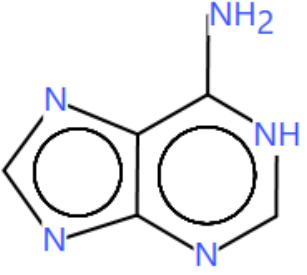
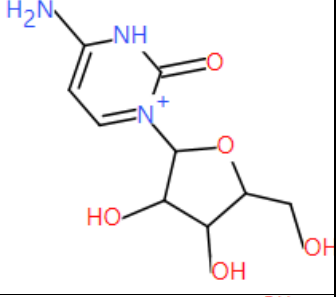
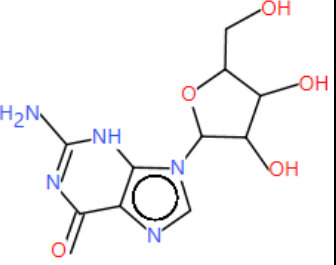
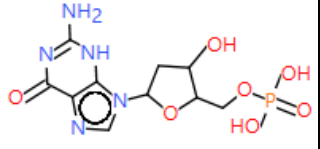
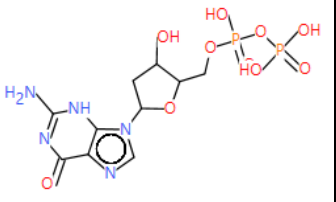
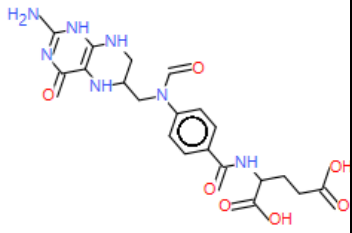
373	7722-84-1		HYDROGEN-PEROXIDE	OO		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=HYDROGEN-PEROXIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=HYDROGEN-PEROXIDE</a>
374			MI-HEXAKISPHOSPHATE	O=P(O)(O)OC1C(OP(=O)(O)O)C(OP(=O)(O)O)C(OP(=O)(O)O)C(OP(=O)(O)O)C1(OP(=O)(O)O)		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=MI-HEXAKISPHOSPHATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=MI-HEXAKISPHOSPHATE</a>
375	2466-09-3	2195740	PPI	OP(=O)(O)OP(=O)(O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PPI">http://biocyc.org/HUMAN/NEW-IMAGE?object=PPI</a>
376	16561-29-8		SEPO3	OP(O)(O)=[Se]		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SEPO3">http://biocyc.org/HUMAN/NEW-IMAGE?object=SEPO3</a>
377	14265-44-2		Pi	OP(=O)(O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Pi">http://biocyc.org/HUMAN/NEW-IMAGE?object=Pi</a>
378	14808-79-8		SULFATE	OS(=O)(=O)O		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SULFATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=SULFATE</a>
379	7782-99-2	2319731	SO3	O[S+](O)[O-]		<a href="http://biocyc.org/HUMAN/">http://biocyc.org/HUMAN/</a>

						<a href="#">NEW-IMAGE?object=SO3127-17-3</a>
380	71861-60-4		Hydroxymethylbilane	<chem>Cc1[nH]c(Cc2[nH]c(Cc3[nH]c(Cc4[nH]cc(CCC(O)=O)c4CC(O)=O)c(CCC(O)=O)c3CC(O)=O)c(CC(O)=O)c2CCC(O)=O)c(CCC(O)=O)c1CC(O)=O</chem>		<a href="#">IMAGE?object=HYDROXYMETHYLBILANE</a>
381	7412-77-3		Protoporphyrinogen	<chem>Cc1c[nH]c(Cc2[nH]c(Cc3[nH]c(Cc4[nH]c(C)c(C=C)c4C)c(C)c3CCC(O)=O)c(CCC(O)=O)c2C)c1C=C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRINOGEN">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRINOGEN</a>
382	2624-63-7		COPROPORPHYRINOGEN_III	<chem>Cc1c[nH]c(Cc2[nH]c(Cc3[nH]c(Cc4[nH]c(C)c(CC(C(O)=O)c4C)c(C)c3CCC(O)=O)c(CCC(O)=O)c2C)c1CCC(O)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=COPROPORPHYRINOGEN_III">http://biocyc.org/HUMAN/NEW-IMAGE?object=COPROPORPHYRINOGEN_III</a>
383	553-12-8		PROTOPORPHYRIN_IX	<chem>Cc1c[nH]c(C=C2N=C(C=C3N=C(C=C4NC(=C)C(C=C)C4)C(C)=C3CCC(O)=O)C(CC(C(O)=O)=C2C)c1C=C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRIN_IX">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROTOPORPHYRIN_IX</a>

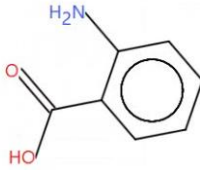
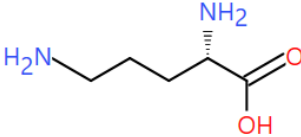
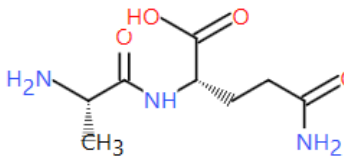
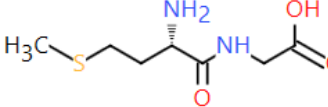
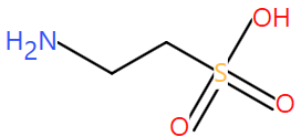


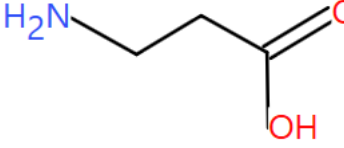
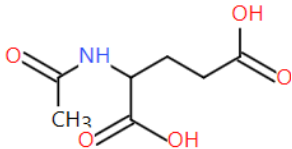
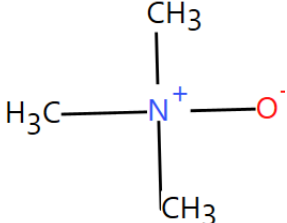
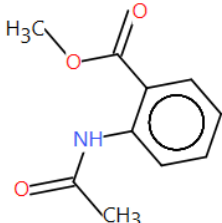
				<chem>C@@H]4CC(C(N)=O)[C@@](C)(CC(N)=O)[C@@H]3CCC(N)=O)C(C)(C)[C@@H]1CCC(N)=O</chem>		
389			ADENOSYLCOBINAMIDE	<chem>[Co+3].[CH2-]C1OC(C(O)C1O)n1cnc2c(N)ncnc21.CC=C1N=C(C=C2N=C(C(C)=C3[N-]C(C)(C4N=CC(C)(CCC(=O)NCC(C)O)C4CC(N)=O)C(C)(CC(N)=O)C3CC(C(N)=O)C(C)(CC(N)=O)C2CCC(N)=O)C(C)(C)C1CCC(N)=O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSYLCOBINAMIDE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENOSYLCOBINAMIDE</a>
390	362-66-3		STEAROYL-COA	<chem>CCCCCCCCCCCCCCCCC(=O)SCCNC(=O)CCNC(=O)C(O)C(C)(C)COP(O)(=O)OP(O)(=O)OCC1OC(C(O)C1OP(O)(O)=O)n1cnc2c(N)ncnc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=STEAROYL-COA">http://biocyc.org/HUMAN/NEW-IMAGE?object=STEAROYL-COA</a>

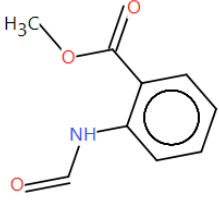
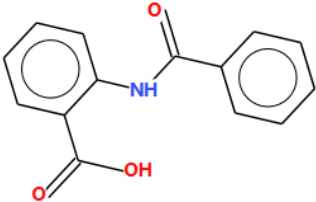
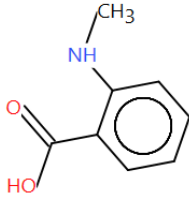
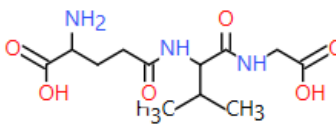
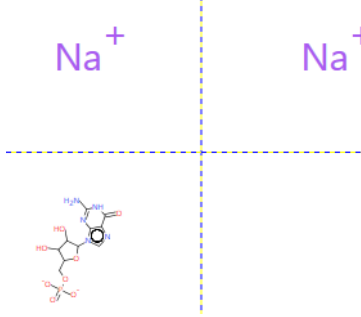
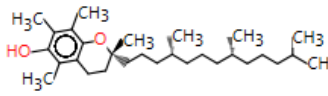
391	154-87-0		THIAMINE-PYROPHOSPHATE	<chem>Cc1ncc(C[n+ ]2csc(CCOP(O)(=O)OP(O)(O)=O)c2C)c(N)n1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=THIAMINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=THIAMINE</a>
392	57-55-6		propane-1,2-diol	<chem>CC(O)CO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=PROPANE-1-2-DIOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=PROPANE-1-2-DIOL</a>
393	2-ketobutyrate		2-ketobutyrate	<chem>CCC(=O)C(=O)[O-]</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=2-OXOBUTANOATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=2-OXOBUTANOATE</a>
394	110-17-8		FUM	<chem>O=C(O)C=C C(=O)O</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FUM">http://biocyc.org/HUMAN/NEW-IMAGE?object=FUM</a>
395	12408-02-5		Hydrogen ion	<chem>[H+]</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=PROTON">https://biocyc.org/compound?orgid=HUMAN&amp;id=PROTON</a>  <a href="https://www.ebi.ac.uk/chebi/CHEBI:24636">https://www.ebi.ac.uk/chebi/CHEBI:24636</a>

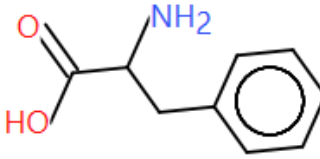
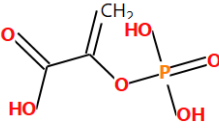
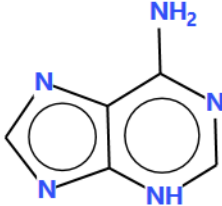
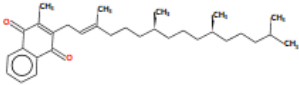
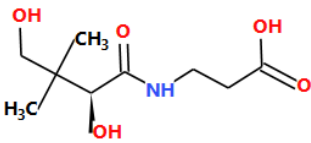
396	73-24-5		ADENINE_2	<chem>Nc1[nH]cnc2ncnc12</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENINE">http://biocyc.org/HUMAN/NEW-IMAGE?object=ADENINE</a>
397			6-amino-3-[3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-1H-pyrimidin-3-ium-2-one	<chem>NC1NC(=O)[N+](=CC=1)C1OC(CO)C(O)C1O</chem>		<a href="https://www.hmdb.ca/metabolites/HMDB0000089">https://www.hmdb.ca/metabolites/HMDB0000089</a>
398	118-00-3		GUANOSINE	<chem>NC1Nc2c(ncn2C2OC(CO)C(O)C2O)C(=O)N=1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=GUANOSINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=GUANOSINE</a>
399	902-04-5	212-988-2	Deoxyguanosine monophosphate_2	<chem>NC1Nc2c(ncn2C2CC(O)C(COP(O)(O)=O)O2)C(=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine monophosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine monophosphate</a>
400	3493-09-2		Deoxyguanosine diphosphate_2	<chem>NC1Nc2c(ncn2C2CC(O)C(COP(O)(=O)OP(O)(O)=O)O2)C(=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine diphosphate">http://biocyc.org/HUMAN/NEW-IMAGE?object=Deoxyguanosine diphosphate</a>
401	2800-34-2		10-FORMYL-THF_2	<chem>NC1NC2NC(C(CN(C=O)c3ccc(cc3)C(=O)NC(CCC(O)=O)C(O)=O)NC=2C(=O)N=1</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000972">https://hmdb.ca/metabolites/HMDB0000972</a>

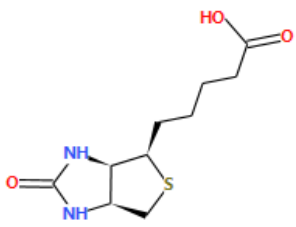
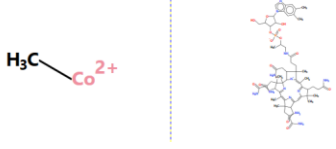
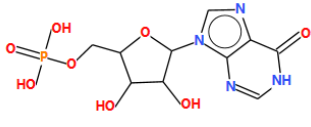
402	134-35-0		5-METHYL-THF_2	<chem>CN1C(CNc2ccc(cc2)C(=O)NC(CCC(O)=O)C(O)=O)CNC2NC(N)=NC(=O)C1=2</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=5-METHYL-THF">http://biocyc.org/HUMAN/NEW-IMAGE?object=5-METHYL-THF</a>
403	4033-27-6		DIHYDROFOLATE_2	<chem>NC1NC2NC(C(CNc3ccc(cc3)C(=O)NC(CCC(O)=O)C(O)=O)=N)C=2C(=O)N=1</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDROFOLATE">http://biocyc.org/HUMAN/NEW-IMAGE?object=DIHYDROFOLATE</a>
404	50-70-4		SORBITOL	<chem>OCC(O)C(O)C(O)C(O)CO</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=SORBITOL">http://biocyc.org/HUMAN/NEW-IMAGE?object=SORBITOL</a>
405	146-17-8		C17H21N4O9P	<chem>Cc1cc2N=C3C(=O)NC(=O)N=C3N(C(C(O)C(O)C(O)COP(O)(O)=O)c2cc1C</chem>		<a href="http://biocyc.org/HUMAN/NEW-IMAGE?object=FMN">http://biocyc.org/HUMAN/NEW-IMAGE?object=FMN</a>
406	120-72-9	204-420-7	Indole	<chem>c1ccc2[nH]c2c1</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=INDOLE">https://biocyc.org/compound?orgid=HUMAN&amp;id=INDOLE</a>
407	83-34-1	201-471-7	3-Methylindole	<chem>Cc1c[nH]c2ccccc12</chem>		[1-2]
408	109-97-7*	2037247	Pyrrole	<chem>c1cc[nH]c1</chem>		[3-4], [20]

409	118-92-3*	2042875	Anthranilic acid	<chem>Nc1ccccc1C(=O)O</chem>		<a href="https://hmdb.ca/metabolites/HMDB0001123">https://hmdb.ca/metabolites/HMDB0001123</a>  and <a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ANTHRANILATE">https://biocyc.org/compound?orgid=HUMAN&amp;id=ANTHRANILATE</a>
410	70-26-8	2007317	L-Ornithine, (S)-2,5-Diaminopentanoic acid	<chem>C(CC(C(=O)O)N)CN</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000214">https://hmdb.ca/metabolites/HMDB0000214</a>  and <a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=L-ORNITHINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=L-ORNITHINE</a>
411	39537-23-0	475-290-9	L-Alanyl-L-Glutamine	<chem>C[C@H](N)C(=O)N[C@@H](CCC(N)=O)C(=O)O</chem>		<a href="https://biocyc.org/compound?orgid=META&amp;id=CPD-13403">https://biocyc.org/compound?orgid=META&amp;id=CPD-13403</a>  and <a href="https://hmdb.ca/metabolites/HMDB0028685">https://hmdb.ca/metabolites/HMDB0028685</a>
412	14486-03-4	238-487-9	L-Methionylglycine	<chem>CSCC[C@H](N)C(=O)NC(=O)O</chem>		<a href="https://hmdb.ca/metabolites/HMDB0028973">https://hmdb.ca/metabolites/HMDB0028973</a>
413	107-35-7	203-483-8	Taurine	<chem>NCCS(=O)(=O)O</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=TAURINE">https://biocyc.org/compound?orgid=HUMAN&amp;id=TAURINE</a>

						<a href="https://hmdb.ca/metabolites/HMDB0000251">https://hmdb.ca/metabolites/HMDB0000251</a>
414	107-95-9	203-536-5	beta-Alanine	<chem>NCCC(O)=O</chem>		<a href="https://biocyc.org/HUMAN/substring-search?type=NIL&amp;object=107-95-9">https://biocyc.org/HUMAN/substring-search?type=NIL&amp;object=107-95-9</a>
415	1188-37-0	214-708-4	N-Acetyl-L-glutamic acid	<chem>OC(=O)CC[C@@H](C(=O)O)NC(=O)C</chem>		<a href="https://hmdb.ca/metabolites/HMDB0001138">https://hmdb.ca/metabolites/HMDB0001138</a> and <a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=ACETYL-GLU">https://biocyc.org/compound?orgid=HUMAN&amp;id=ACETYL-GLU</a>
416	1184-78-7	214-675-6	Trimethylamine oxide	<chem>C[N+](C)(C)[O-]</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000925">https://hmdb.ca/metabolites/HMDB0000925</a> and <a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=TRIMETHYLAMINE-N-O">https://biocyc.org/compound?orgid=HUMAN&amp;id=TRIMETHYLAMINE-N-O</a>
417	2719-08-6*	220-318-5	Methyl N-acetylanthranilate	<chem>COC(=O)c1cccc1NC(=O)C</chem>		[8-9],[16-18]

418	41270-80-8*	255-287-7	Methyl N-formylanthranilate	<chem>COC(=O)c1cccc1NC=O</chem>		[8-9],[16-18]
419	579-93-1*		N-Benzoylanthranilate	<chem>OC(=O)c1cccc1NC(=O)c2ccccc2</chem>		[8-9],[16-19]
420	119-68-6*	204-343-9	2-(Methylamino)benzoic acid	<chem>CNc1cccc1C(=O)O</chem>		<a href="https://hmdb.ca/metabolites/HMDB0032609">https://hmdb.ca/metabolites/HMDB0032609</a> and <a href="https://biocyc.org/gene?orgid=HUMAN&amp;id=ENSG00000119686-MONOMER">https://biocyc.org/gene?orgid=HUMAN&amp;id=ENSG00000119686-MONOMER</a>
421	38837-70-6		glutamyl-valyl-glycine	<chem>CC(C)[C@H](NC(=O)CC[C@H](N)C(=O)O)C(=O)NCC(=O)O</chem>		[10-11]
422	5550-12-9** Munro DB		Guanosine 5'-monophosphate disodium salt	<chem>[Na+].[Na+].NC1NC(=O)c2ncn([C@@H]3O[C@H](COP([O-])([O-])=O)[C@@H](O)[C@H]3O)c2N=1</chem>		[12]
423	59-02-9		alpha-tocopherol	<chem>CC(C)CCC[C@@H](C)CCC[C@@H](C)CCC[C@@](C)(C)CCc2c(C)c(O)c(C)c(C)c2O1</chem>		Atkinson, J., Manor, D., and Parker, R. "Vitamin E." <i>Encyclopedia of Biological Chemistry</i> , Elsevier, 2013, pp. 545-550.

424	673-06-3	2116035	Phenylalanine	<chem>NC(Cc1ccccc1)C(=O)O</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000159">https://hmdb.ca/metabolites/HMDB0000159</a>
425	138-08-9	2053122	Phosphoenolpyruvic acid	<chem>OC(=O)C(=C)OP(=O)(O)O</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000263">https://hmdb.ca/metabolites/HMDB0000263</a>
426	73-24-5		Adenine	<chem>Nc1ncnc2[nH]cnc12</chem>		<a href="https://hmdb.ca/metabolites/HMDB0000034">https://hmdb.ca/metabolites/HMDB0000034</a>
427	84-80-0	279-052-3	VITAMIN K1	<chem>CC(C)CCC[C@@H](C)CCC[C@@H](C)CCC/C(C)=C/CC1C(=O)c2ccccc2C(=O)C=1C</chem>		<a href="https://pubchem.ncbi.nlm.nih.gov/compound/5284607">https://pubchem.ncbi.nlm.nih.gov/compound/5284607</a> and [21,23 and 25]
428	79-83-4	2012290	D-Pantothenic acid; Vitamin B5	<chem>CC(C)(CO)[C@@H](O)C(=O)NCCC(O)=O</chem>		<a href="https://pubchem.ncbi.nlm.nih.gov/compound/6613">https://pubchem.ncbi.nlm.nih.gov/compound/6613</a> , <a href="https://nutrition.basf.com/global/en/human-nutrition/portfolio/vitamins/vitamin-b5?utm_source=chatgpt.com">https://nutrition.basf.com/global/en/human-nutrition/portfolio/vitamins/vitamin-b5?utm_source=chatgpt.com</a> , <a href="https://ods.od.nih.gov/factsheets/PantothenicAcid-Consumer/?utm_source=chatgpt.com">https://ods.od.nih.gov/factsheets/PantothenicAcid-Consumer/?utm_source=chatgpt.com</a> , and [23,25]

429	58-85-5	2003993	D-Biotin (biotin; vitamin H; coenzyme R)	<chem>OC(=O)CCC[C@@H]1SC[C@@H]2NC(=O)N[C@@H]12</chem>		<a href="https://pubchem.ncbi.nlm.nih.gov/compound/171548">https://pubchem.ncbi.nlm.nih.gov/compound/171548</a> , <a href="https://ods.od.nih.gov/factsheets/Biotin-Consumer/?utm_source=chatgpt.com">https://ods.od.nih.gov/factsheets/Biotin-Consumer/?utm_source=chatgpt.com</a> and [23,25]
430	13422-55-4	236-535-3	Methylcobalamin (MeCbl; mecobalamin; co-methylcobalamin)	<chem>C[Co+2].CC(CNC(=O)CC1(C)C(CC(N)=O)C2[N-])\C1=C(\C)/C1=N/C(=C\C3=N\C(=C\C4=NC2(C)C(C)(CC(N)=O)C4CC(C(N)=O)C(C)(CC(N)=O)C3CCC(N)=O)C(C)(C)C1CCC(N)=O)OP([O-])(=O)OC1C(CO)OC(C1O)n1cnc2cc(C)c(C)cc21</chem>		<a href="https://ods.od.nih.gov/factsheets/VitaminB12-Consumer/?utm_source=chatgpt.com">https://ods.od.nih.gov/factsheets/VitaminB12-Consumer/?utm_source=chatgpt.com</a> and [23-25]
431	131-99-7		Inosine 5'-monophosphate	<chem>OC1C(COP(=O)(O)=O)OC(C1O)n1cnc2C(=O)NC=Nc21</chem>		<a href="https://biocyc.org/compound?orgid=HUMAN&amp;id=IMP">https://biocyc.org/compound?orgid=HUMAN&amp;id=IMP</a>

\*The assignment of the substances to Cramer Class I, based on Rule R1 (biological normality) is supported by their metabolic fate and structural similarity to endogenous compounds. These substances belong to the group of anthranilate derivatives, which are closely related to anthranilic acid, an intermediate in the metabolism of tryptophan and a naturally occurring compound in the human body. They are metabolized via well-established N-acetylation pathways to non-toxic, readily excreted products, representing normal detoxification processes in humans. According to JECFA (WHO Food Additives Series No. 201), anthranilate derivatives have been evaluated by experts and assigned to Cramer Class I.

\*\*The substance (CAS 5550-12-9) is structurally related to cyclic nucleotides, such as cyclic AMP and cyclic GMP, which are well-established endogenous signaling molecules in human physiology. These compounds are naturally formed and metabolized in the human body as part of normal biochemical processes and are rapidly regulated and excreted. Furthermore CAS 5550-12-9 represents the dissociated (ionic) form of 5'-guanylic acid (CAS 85-32-5) i.e. GMP, an endogenous nucleotide involved in normal cellular metabolism. As such, it reflects a physiologically relevant form present under biological conditions, where dissociation occurs naturally in aqueous environments. Therefore, its structural similarity to endogenous metabolites and its involvement in physiological pathways support its identification as a biologically normal substance and its assignment to Cramer Class I according to Rule R1. According to the Munro database, the substance (CAS 5550-12-9) is classified as Cramer Class I.

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