

Name	KEGG.ID	Condition	Av	Std	CV	Abundance					Sig	Av2	denom	Norm_Av	Norm_Std
						Exp001	Exp002	Exp003	ANOVA						
2-HG	C02630	NT	2859093.575	504035.2637	0.176291979	3397034.376	2397726.922	2782519.428	0.010276591	*	2859093.575	1472383.027	1.941813728	0.342326184	
2-HG	C02630	I3sg2	1472383.027	149725.2701	0.101689076	1328818.62	1627589.461	1460741	0.010276591	*	1472383.027	1472383.027	1	0.101689076	
5-Oxoprolin	C01879	NT	18863038.67	779789.2118	0.041339533	18164844.8	19704543.16	18719728.05	0.000262781	***	18863038.67	12510231.2	1.507808957	0.062332118	
5-Oxoprolin	C01879	I3sg2	12510231.2	459601.7737	0.036738072	12862811.41	12677451.21	11990341	0.000262781	***	12510231.2	12510231.2	1	0.036738072	
Aconitate	C00417	NT	721821.5876	92815.00153	0.128584408	723441.2934	813816.1361	628207.3333	0.002131325	**	721821.5876	342258.8069	2.108993467	0.271183676	
Aconitate	C00417	I3sg2	342258.8069	8631.109144	0.025218078	338252.5729	336358.7848	352165	0.002131325	**	342258.8069	342258.8069	1	0.025218078	
ADP/ATP	NA	NT	0.323362593	0.075073275	0.232164377	0.240170398	0.343856782	0.3860606	0.029523822	*	0.323362593	0.323362593	1	0.232164377	
ADP/ATP	NA	I3sg2	0.596193324	0.12119501	0.203281394	0.735189085	0.512611257	0.540779632	0.029523822	*	0.596193324	0.323362593	1.843730032	0.37479601	
Ala	C00041	NT	38355759.67	2461590.506	0.064177588	37997701.18	40976770.36	36092807.46	0.000181364	***	38355759.67	14346365.02	2.673552472	0.171582872	
Ala	C00041	I3sg2	14346365.02	1904125.407	0.132725287	14905739.1	15908149.96	12225206	0.000181364	***	14346365.02	14346365.02	1	0.132725287	
AMP/ATP	NA	NT	0.13773589	0.069453305	0.504249874	0.103621127	0.091937096	0.217649448	0.005794947	**	0.13773589	0.13773589	1	0.504249874	
AMP/ATP	NA	I3sg2	0.366865806	0.02513092	0.068501669	0.395884483	0.352335404	0.35237753	0.005794947	**	0.366865806	0.13773589	2.663545462	0.182457311	
Arg-Succ	C03406	NT	180405.7208	44737.43405	0.247982347	232000.0307	156835.3106	152381.8211	0.034126665	*	180405.7208	97023.80907	1.859396395	0.461097482	
Arg-Succ	C03406	I3sg2	97023.80907	9220.625882	0.095034672	107517.3796	93337.04758	90217	0.034126665	*	97023.80907	97023.80907	1	0.095034672	
Asn	C00152	NT	3638780.038	273384.0218	0.075130681	3945569.897	3547996.368	3420973.85	0.007091273	**	3638780.038	2469811.942	1.473302471	0.110690218	
Asn	C00152	I3sg2	2469811.942	290256.4239	0.11752167	2189942.035	2769444.791	2450049	0.007091273	**	2469811.942	2469811.942	1	0.11752167	
C	D07769	NT	26961.09829	17866.44755	0.662675065	14622.93965	18811.05302	47449.30221	0.008742237	**	26961.09829	26961.09829	1	0.662675065	
C	D07769	I3sg2	114667.6104	26241.50935	0.228848489	94223.49258	144258.3385	105521	0.008742237	**	114667.6104	26961.09829	4.253076382	0.973310103	
CDP-chole	C00307	NT	90801.01786	15304.95083	0.168554838	91780.08954	75030.03629	105592.9278	0.001094597	**	90801.01786	90801.01786	1	0.168554838	
CDP-chole	C00307	I3sg2	258699.8323	31011.04404	0.119872687	239923.5896	294493.9072	241682	0.001094597	**	258699.8323	90801.01786	2.849085157	0.341527494	
CDP-EIA	C00570	NT	1020971.933	121002.4052	0.118516877	989035.2091	919141.2446	1154739.346	0.049192741	*	1020971.933	1020971.933	1	0.118516877	
CDP-EIA	C00570	I3sg2	1225912.478	38961.52869	0.031781656	1199734.576	1207314.856	1270688	0.049192741	*	1225912.478	1020971.933	1.200730831	0.038616214	
Cit	C00158	NT	126509850.5	16754130.57	0.132433407	142747162.3	109282782.6	127499606.6	0.011703467	**	126509850.5	81266230.7	1.566733337	0.2061635	
Cit	C00158	I3sg2	81266230.7	605731.556	0.074537376	75988180.48	7879974.62	79930537	0.011703467	**	81266230.7	81266230.7	1	0.074537376	
CMP	C00055	NT	99197.01866	65194.82721	0.657225672	86453.35639	41314.94097	169822.7586	0.02355065	**	99197.01866	99197.01866	1	0.657225672	
CMP	C00055	I3sg2	272383.2625	53317.80832	0.195745538	212123.1177	268480.9859	327545	0.02355065	**	272383.2625	99197.01866	2.745881542	0.53749406	
Cystathionine	C02291	NT	4287607.921	710307.4741	0.165665212	5044794.14	4182032.175	3635997.449	0.000709469	***	4287607.921	425386.633	10.07931982	1.669792652	
Cystathionine	C02291	I3sg2	425386.633	18135.04051	0.0426319	438599.9223	432848.9767	404711	0.000709469	***	425386.633	425386.633	1	0.0426319	
Cytosine	C00380	NT	410561.4359	51520.30167	0.125487359	31200.0278	410404.0094	462160.2704	0.000205362	**	410561.4359	16195.68674	25.35004797	3.181112508	
Cytosine	C00380	I3sg2	16195.68674	11379.82805	0.702645601	29329.40986	9988.650363	9269	0.000205362	***	16195.68674	16195.68674	1	0.702645601	
F16BP	C00354	NT	2671150.925	589170.5546	0.220568051	1999656.987	2912325.907	3101469.882	0.044236093	**	2671150.925	1936877.605	1.958497533	0.431981985	
F16BP	C00354	I3sg2	1363877.605	513438.4898	0.37645496	1943042.506	1184045.311	964545	0.044236093	**	1363877.605	1363877.605	1	0.37645496	
Folate	C00504	NT	172610.8509	46141.23435	0.267313637	140941.5396	151340.1895	225550.8235	0.023071132	*	172610.8509	172610.8509	1	0.267313637	
Folate	C00504	I3sg2	370707.5128	83861.04954	0.22621891	273945.1132	415855.4252	422322	0.023071132	*	370707.5128	172610.8509	2.147648951	0.485838805	
GABA	C00334	NT	1717606.077	273922.8397	0.159479431	1980267.269	1433663.078	1738887.885	0.012556498	**	1717606.077	1717606.077	1	0.159479431	
GABA	C00334	I3sg2	4455348.432	1065843.72	0.239227916	3227139.389	5001263.907	5137642	0.012556498	**	4455348.432	1717606.077	2.593929127	0.620540259	
Glc	C00031	NT	8974296.029	2170922.97	0.241904542	6655628.935	10958701.53	9308557.627	0.004848842	**	8974296.029	8974296.029	1	0.241904542	
Glc	C00031	I3sg2	19475786.93	2380910.005	0.122194746	18233737.61	17972731.19	22220892	0.004848842	**	19475786.93	8974296.029	2.170174337	0.265303261	
GlcA	C00257	NT	703620.2939	151018.6014	0.214630821	831366.6361	742544.3602	536949.8855	0.010939104	*	703620.2939	270793.1466	2.598368175	0.567689895	
GlcA	C00257	I3sg2	270793.1466	71557.7823	0.26425256	234335.8749	353237.5648	224806	0.010939104	*	270793.1466	270793.1466	1	0.26425256	
GlcNAc-6P	C00357	NT	476299.7703	54697.72013	0.114838855	534641.0003	426175.2476	468083.0629	0.022694534	*	476299.7703	276884.7344	1.720209571	0.197546897	
GlcNAc-6P	C00357	I3sg2	276884.7344	78722.76686	0.284316024	189879.5986	343187.0646	297587	0.022694534	*	276884.7344	276884.7344	1	0.284316024	
GlucA	C00191	NT	185972.0512	26507.36618	0.142534139	208670.8493	156840.2484	192405.056	0.001188349	**	185972.0512	52972.48466	3.510729247	0.50039877	
GlucA	C00191	I3sg2	52972.48466	8989.068793	0.169693169	61208.97614	54324.47784	43384	0.001188349	**	52972.48466	52972.48466	1	0.169693169	
Gly	C00037	NT	14176813.3	450961.996	0.031809828	127198783.72	14697532.4	13914123.76	0.000633787	**	14176813.3	9412258.545	1.506207381	0.047912198	
Gly	C00037	I3sg2	9412258.545	722037.384	0.076712447	8606369.704	9630147.931	10000258	0.000633787	**	9412258.545	9412258.545	1	0.076712447	
GSH	C00051	NT	95036256.62	3630394.156	0.038200096	97036639.006	93983662.48	92048468.33	0.000126431	***	95036256.62	61795077.87	1.537925995	0.058748921	
GSH	C00051	I3sg2	61795077.87	1507732.581	0.024398911	62842120.68	60066967.92	62476145	0.000126431	***	61795077.87	61795077.87	1	0.024398911	
His	C00135	NT	36016885.1	5019268.83	0.139358771	41744607.8	33919805.4	32386242.1	0.016346722	*	36016885.1	23768619.18	1.515312473	0.211172083	
His	C00135	I3sg2	23768619.18	1778295.24	0.074816935	21798644.78	24251874.75	25255338	0.016346722	*	23768619.18	23768619.18	1	0.074816935	
HS2O3	C00320	NT	498005.4162	63378.68714	0.127265056	515024.8451	427854.7067	551136.6897	0.04195572	*	498005.4162	498005.4162	1	0.127265056	
HS2O3	C00320	I3sg2	1052878.372	319524.6751	0.30347729	698154.4942	1142352.622	1318128	0.04195572	*	1052878.372	498005.4162	2.114190605	0.641608835	
IMP	C00130	NT	165383.195	56795.29316	0.34341635	139149.8203	126446.4208	230553.3439	0.001606668	**	165383.195	165383.195	1	0.34341635	
IMP	C00130	I3sg2	430850.8506	20800.42562	0.04827555	439183.1705	430385.3814	451369	0.001606668	**	430850.8506	165383.195	2.605167052	0.125771096	
Lac	C00186	NT	16460043.35	1457930.558	0.088571983	15055158.69	16360201.24	17965850.13	0.000431732	***	16460043.35	6573700.565	2.503987268	0.221782319	
Lac	C00186	I3sg2	6573700.565	658876.5604	0.100229171	6128783.081	6261692.614								

Name	KEGG.ID	Condition	Iso	Nr.C	Isotopologue Distribution					ANOVA	Sig					
					Exp001	Exp002	Exp003	Norm_Av	Norm_Std			CV	MID001	MID002	MID003	Av
2-HG	C02630	NT	C12 PARENT	5	2271349.59	1625827.395	1951086.888	65.76536	1.5724	0.0239	64.4451	63.4461	67.5049	65.7654	3.66E-05	***
2-HG	C02630	I3sg2	C12 PARENT	5	1269493.211	1595707.463	1449432.882	92.88287	1.7379	0.0187	91.0192	93.1701	94.4593	92.8829	3.66E-05	***
2-HG	C02630	NT	C13-02	5	627376.0082	376907.4751	455884.7993	16.2408	1.3864	0.0854	17.8006	15.1489	15.773	16.2408	0.00201	**
2-HG	C02630	I3sg2	C13-02	5	120346.0607	104329.679	75764.15413	6.55254	1.8882	0.2882	8.62849	6.0916	4.93754	6.55254	0.00201	**
2-HG	C02630	NT	C13-03	5	196940.6132	154646.8542	137384.6061	5.518922	0.7336	0.1329	5.5878	6.21564	4.75332	5.51892	0.00034	***
2-HG	C02630	I3sg2	C13-03	5	4913.771116	0	9255.226371	0.318489	0.303	0.9514	0.3523	0	0.60316	0.31849	0.00034	***
2-HG	C02630	NT	C13-04	5	271939.4282	188381.7349	219132.9223	7.622993	0.0805	0.0106	7.71575	7.57153	7.5817	7.62299	7.91E-06	***
2-HG	C02630	I3sg2	C13-04	5	0	12644.96109	0	0.246104	0.4263	1.7321	0	0.73831	0	0.2461	7.91E-06	***
2-HG	C02630	NT	C13-05	5	156867.4937	142263.1647	126798.1703	4.851921	0.7506	0.1547	4.45081	5.71791	4.38704	4.85192	0.00036	***
2-HG	C02630	I3sg2	C13-05	5	0	0	0	0	0	NA	0	0	0	0	0.00036	***
3PG	C00197	NT	C12 PARENT	3	120371.2962	57828.54109	49565.87046	8.950552	0.104	0.0116	9.06221	8.85633	8.93312	8.95055	0.93228	
3PG	C00197	I3sg2	C12 PARENT	3	62693.69187	73090.9014	120119.8278	9.126449	3.3666	0.3689	12.3699	5.64899	9.36047	9.12645	0.93228	
3PG	C00197	NT	C13-03	3	1207906.012	595134.503	505289.4191	91.04945	0.104	0.0011	90.9378	91.1437	91.0669	91.0494	0.93228	
3PG	C00197	I3sg2	C13-03	3	444131.5663	1220785.05	1163146.548	90.87355	3.3666	0.037	87.6301	94.351	90.6395	90.8736	0.93228	
5-Oxoprolin	C01879	NT	C12 PARENT	5	16752451.52	18849129.95	16775304.91	91.70346	3.1103	0.0339	91.1211	95.0638	88.9259	91.7035	0.10625	
5-Oxoprolin	C01879	I3sg2	C12 PARENT	5	12449711.95	12090181.77	11645690.55	95.52006	0.6672	0.007	96.1152	94.7988	95.6462	95.5201	0.10625	
5-Oxoprolin	C01879	NT	C13-01	5	0	19349.52191	162469.1814	0.319611	0.4716	1.4755	0	0.09759	0.86125	0.31961	0.78879	
5-Oxoprolin	C01879	I3sg2	C13-01	5	0	182460.1644	0	0.476889	0.826	1.7321	0	1.43067	0	0.47689	0.78879	
5-Oxoprolin	C01879	NT	C13-02	5	1054234.972	589752.5589	1261958.177	5.132746	1.9293	0.3759	5.73427	2.97436	6.68961	5.13275	0.15388	
5-Oxoprolin	C01879	I3sg2	C13-02	5	373759.9054	369459.4906	439784.7565	3.131469	0.4162	0.1329	2.88553	2.89692	3.61196	3.13147	0.15388	
5-Oxoprolin	C01879	NT	C13-04	5	380576.051	276736.4205	383603.6864	1.833075	0.3792	0.2069	2.07005	1.39569	2.03347	1.83307	0.00834	**
5-Oxoprolin	C01879	I3sg2	C13-04	5	101847.0388	86748.57716	45455.67323	0.613269	0.2145	0.3497	0.78629	0.68019	0.37333	0.61327	0.00834	**
5-Oxoprolin	C01879	NT	C13-05	5	197565.9747	92901.32043	281110.0035	1.011104	0.5138	0.5081	1.07461	0.46854	1.49016	1.0111	0.06714	
5-Oxoprolin	C01879	I3sg2	C13-05	5	27589.50421	24664.49623	44874.18899	0.258315	0.096	0.3715	0.213	0.19339	0.36855	0.25831	0.06714	
A	C00212	NT	C12 PARENT	10	93664.75249	87654.01645	13415.65534	56.07845	39.9354	0.7121	21.9518	46.2836	100	56.0784	0.72387	
A	C00212	I3sg2	C12 PARENT	10	46888.86549	249598.3752	190530.1793	47.20594	6.9488	0.1472	53.4233	39.7047	48.4898	47.2059	0.72387	
A	C00212	NT	C13-05	10	282342.5644	78804.5574	0	35.92738	33.4498	0.931	66.1713	61.1608	0	35.9274	0.45224	
A	C00212	I3sg2	C13-05	10	40879.68339	368916.903	202397.9199	52.25735	6.0887	0.1165	46.5767	58.6852	51.5102	52.2573	0.45224	
A	C00212	NT	C13-06	10	50677.01512	22926.14921	0	7.994177	6.9241	0.8661	11.8769	12.1056	0	7.99418	0.13817	
A	C00212	I3sg2	C13-06	10	0	10121.86951	0	0.53671	0.9296	1.7321	0	1.61013	0	0.53671	0.13817	
a-KG	C00026	NT	C12 PARENT	5	221950.4663	2040182.852	1505859.682	73.51454	23.0306	0.3133	100	58.1979	62.3457	73.5145	0.20091	
a-KG	C00026	I3sg2	C12 PARENT	5	897901.686	157555.7015	123928.8261	95.15702	8.3883	0.0882	85.4711	100	100	95.157	0.20091	
a-KG	C00026	NT	C13-02	5	0	666386.777	441036.4304	12.42302	10.7652	0.8666	0	19.0092	18.2598	12.423	0.33725	
a-KG	C00026	I3sg2	C13-02	5	133378.4825	0	0	4.232089	7.3302	1.7321	12.6963	0	4.23209	0.33725		
a-KG	C00026	NT	C13-03	5	0	204069.2913	139393.0111	3.864135	3.3465	0.866	0	5.82125	5.77116	3.86414	0.18367	
a-KG	C00026	I3sg2	C13-03	5	19252.92448	0	0	0.610894	1.0581	1.7321	1.83268	0	0	0.61089	0.18367	
a-KG	C00026	NT	C13-04	5	0	372905.5368	174362.3419	5.952135	5.4307	0.9124	0	10.6374	7.21896	5.95214	0.13049	
a-KG	C00026	I3sg2	C13-04	5	0	0	0	0	0	NA	0	0	0	0.13049		
a-KG	C00026	NT	C13-05	5	0	222048.3237	154687.6025	4.246167	3.6775	0.8661	0	6.33412	6.40438	4.24617	0.11613	
a-KG	C00026	I3sg2	C13-05	5	0	0	0	0	0	NA	0	0	0	0.11613		
Ac-carnitine	C02571	NT	C12 PARENT	9	8150464.274	10533812.82	9595272.951	64.96349	0.2891	0.0045	64.643	65.0427	65.2047	64.9635	7.52E-06	***
Ac-carnitine	C02571	I3sg2	C12 PARENT	9	12128843.46	18575729.3	11616093.67	74.46248	0.4696	0.0063	74.8515	73.9408	74.5951	74.4625	7.52E-06	***
Ac-carnitine	C02571	NT	C13-01	9	0	0	0	0	0	NA	0	0	0	NA		
Ac-carnitine	C02571	I3sg2	C13-01	9	0	0	0	0	0	NA	0	0	0	NA		
Ac-carnitine	C02571	NT	C13-02	9	4457959.467	5661402.284	5120337.462	35.03651	0.2891	0.0083	35.357	34.9573	34.7953	35.0365	7.52E-06	***
Ac-carnitine	C02571	I3sg2	C13-02	9	4075028.508	6546694.83	3956100.255	25.53752	0.4696	0.0184	25.1485	26.0592	25.4049	25.5375	7.52E-06	***
Ac-carnitine	C02571	NT	C13-03	9	0	0	0	0	0	NA	0	0	0	NA		
Ac-carnitine	C02571	I3sg2	C13-03	9	0	0	0	0	0	NA	0	0	0	NA		
Acetyl-CoA	C00024	NT	C12 PARENT	23	9517.416111	3373.770277	4204.517733	6.638982	0.3184	0.048	6.94109	6.66941	6.30645	6.63898	0.00015	***
Acetyl-CoA	C00024	I3sg2	C12 PARENT	23	12564.41385	17037.49396	19468.52453	19.54804	1.5727	0.0805	19.6596	21.062	17.9226	19.548	0.00015	***
Acetyl-CoA	C00024	NT	C13-01	23	0	0	0	0	0	NA	0	0	0	NA		
Acetyl-CoA	C00024	I3sg2	C13-01	23	0	0	0	0	0	NA	0	0	0	NA		
Acetyl-CoA	C00024	NT	C13-02	23	11945.82337	4352.101653	5776.803397	8.660101	0.0545	0.0063	8.71213	8.60341	8.66476	8.6601	0.00534	**
Acetyl-CoA	C00024	I3sg2	C13-02	23	8631.768088	12051.61594	19169.82603	15.3507	2.1074	0.1373	13.5062	14.8984	17.6476	15.3507	0.00534	**
Acetyl-CoA	C00024	NT	C13-03	23	688.5289125	0	423.8138992	0.379278	0.3352	0.8837	0.50215	0	0.63569	0.37928	0.13518	
Acetyl-CoA	C00024	I3sg2	C13-03	23	983.0885913	1919.678362	522.1161192	1.46401	0.9484	0.6478	1.53825	2.37313	0.48066	1.46401	0.13518	
Acetyl-CoA	C00024	NT	C13-04	23	0	46.55930087	473.1523745	0.267244	0.3859	1.4441	0	0.09204	0.70969	0.26724	0.45704	
Acetyl-CoA	C00024	I3sg2	C13-04	23	0	470.3394876	1407.872616	0.625838	0.6492	1.0373	0	0.58144	1.29608	0.62584	0.45704	
Acetyl-CoA	C00024	NT	C13-05	23	42622.53069	16339.56552	19101.95396	30.67898	1.8582	0.0606	31.0848	32.3007	28.6515	30.679	0.14764	
Acetyl-CoA	C00024	I3sg2	C13-05	23	22283.46494	25832.60228	35510.43622	33.16409	1.5225	0.0459	34.8671	31.9346	32.6906	33.1641	0.14764	
Acetyl-CoA	C00024	NT	C13-06	23	11851.68769	2725.319166	4611.00851	6.982386	1.629	0.2333	8.64348	5.38752	6.91616	6.98239	0.01693	*
Acetyl-CoA	C00024	I3sg2	C13-06	23	1868.981717	2438.297673	736.7150909	2.205625	1.3235	0.6001	2.92441	3.01425	0.67821	2.20562	0.01693	*
Acetyl-CoA	C00024	NT	C13-07	23	50169.											

ADP	C00008	I3sg2	C13-03	10	190129.9806	402722.7825	335001.0518	1.477043	0.2319	0.157	1.23212	1.69315	1.50586	1.47704	0.01419	*
ADP	C00008	NT	C13-04	10	385177.2014	208834.2685	497746.8222	1.817095	0.1405	0.0773	1.69236	1.78956	1.96936	1.8171	0.72143	
ADP	C00008	I3sg2	C13-04	10	356265.8731	238373.4014	377560.6147	1.669365	0.6537	0.3916	2.30874	1.60218	1.69717	1.66936	0.72143	
ADP	C00008	NT	C13-05	10	14776533.31	7396534.357	16516605.71	64.55197	1.0345	0.016	64.9241	63.3829	65.3489	64.552	0.87876	
ADP	C00008	I3sg2	C13-05	10	10009853.6	15308179.83	14264016.37	64.44846	0.3827	0.0059	64.8678	64.3596	64.118	64.4485	0.87876	
ADP	C00008	NT	C13-06	10	31866576.699	1743914.838	3355333.68	14.07354	0.8366	0.0594	14.001	14.9441	13.2756	14.0735	1.53E-05	***
ADP	C00008	I3sg2	C13-06	10	215236.4313	197210.3387	299950.5481	1.190748	0.314	0.2637	1.39482	0.82912	1.3483	1.19075	1.53E-05	***
ADP	C00008	NT	C13-07	10	1104882.937	547235.7931	1248426.348	4.827813	0.1272	0.0263	4.85456	4.68941	4.93947	4.82781	6.22E-07	***
ADP	C00008	I3sg2	C13-07	10	85793.60144	141236.8263	114985.4586	0.555548	0.0385	0.0692	0.55598	0.5938	0.51687	0.55555	6.22E-07	***
ADP	C00008	NT	C13-08	10	223953.6598	89705.19147	191594.6887	0.836918	0.1275	0.1523	0.98399	0.76871	0.75806	0.83692	0.00109	**
ADP	C00008	I3sg2	C13-08	10	26158.95232	0	0	0.056507	0.0979	1.7321	0.16952	0	0	0.05651	0.00109	**
ADP	C00008	NT	C13-09	10	0	0	0	0	0	NA	0	0	0	0	NA	
ADP	C00008	I3sg2	C13-09	10	0	0	0	0	0	NA	0	0	0	0	NA	
Ala	C00041	NT	C12 PARENT	3	2091861.124	2097387.287	1895355.329	5.242978	0.1947	0.0371	5.45458	5.07136	5.203	5.24298	1.86E-05	***
Ala	C00041	I3sg2	C12 PARENT	3	1529124.371	1739006.781	1288955.196	10.46162	0.3266	0.0312	10.1645	10.8113	10.409	10.4616	1.86E-05	***
Ala	C00041	NT	C13-01	3	68709.45841	131187.5721	23296.4467	0.186772	0.1268	0.6789	0.17916	0.3172	0.06395	0.18677	0.09858	
Ala	C00041	I3sg2	C13-01	3	10162.06178	0	0	0.022517	0.039	1.7321	0.06755	0	0	0.02252	0.09858	
Ala	C00041	NT	C13-02	3	507761.3836	342533.3653	441062.0488	1.120999	0.2598	0.2318	1.324	0.82822	1.21077	1.121	0.93212	
Ala	C00041	I3sg2	C13-02	3	121292.0004	249115.0479	133700.5118	1.1449	0.3755	0.328	0.80626	1.54873	1.07971	1.1449	0.93212	
Ala	C00041	NT	C13-03	3	35682236.86	38786420.53	34068400.64	93.44925	0.3758	0.004	93.0423	93.7832	93.5223	93.4493	0.00033	***
Ala	C00041	I3sg2	C13-03	3	13383126.8	14097000.52	10960385.87	88.37096	0.6719	0.0076	88.9616	87.64	88.5113	88.371	0.00033	***
AMP	C00020	NT	C12 PARENT	10	1254212.957	427620.333	1802606.283	13.03607	0.6172	0.0473	12.7389	13.7457	12.6236	13.0361	2.79E-06	***
AMP	C00020	I3sg2	C12 PARENT	10	2551120.193	5112252.331	4581734.591	31.13451	0.5396	0.0173	30.5446	31.2558	31.6031	31.1345	2.79E-06	***
AMP	C00020	NT	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA	
AMP	C00020	I3sg2	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA	
AMP	C00020	NT	C13-02	10	69820.9967	21881.11976	120476.5102	0.752073	0.0794	0.1056	0.70917	0.70336	0.84369	0.75207	0.23989	
AMP	C00020	I3sg2	C13-02	10	63639.30566	139147.5195	157250.1952	0.899114	0.1667	0.1854	0.76195	0.85073	1.08465	0.89911	0.23989	
AMP	C00020	NT	C13-03	10	80355.18213	19091.79762	1380753.2444	0.79888	0.1772	0.2218	0.81616	0.6137	0.96678	0.79888	0.00274	**
AMP	C00020	I3sg2	C13-03	10	129753.0234	281019.3412	218707.7685	1.593409	0.1103	0.0692	1.55354	1.71812	1.50857	1.59341	0.00274	**
AMP	C00020	NT	C13-04	10	141595.762	51596.15483	191539.6481	1.479353	0.1626	0.1099	1.43817	1.65854	1.34135	1.47935	0.08118	
AMP	C00020	I3sg2	C13-04	10	96076.49732	204131.8425	189994.7165	1.236294	0.0807	0.0653	1.15033	1.24804	1.31051	1.23629	0.08118	
AMP	C00020	NT	C13-05	10	6507803.713	2059824.748	9546683.042	66.38882	0.4077	0.0061	66.0991	66.2122	66.8551	66.3888	0.00496	**
AMP	C00020	I3sg2	C13-05	10	5385143.714	10395070.85	9139827.588	63.69135	0.7263	0.0114	64.4764	63.5544	63.0432	63.6913	0.00496	**
AMP	C00020	NT	C13-06	10	1306447.76	380050.7118	1798695.969	12.69408	0.5332	0.042	13.2695	12.1666	12.5962	12.6941	3.04E-06	***
AMP	C00020	I3sg2	C13-06	10	86069.35884	142880.2632	116786.967	0.903207	0.1154	0.1277	1.03051	0.87356	0.80555	0.90321	3.04E-06	***
AMP	C00020	NT	C13-07	10	371280.145	123143.2255	580866.1512	3.932411	0.1501	0.0382	3.77106	3.95839	4.06779	3.93241	3.80E-06	***
AMP	C00020	I3sg2	C13-07	10	40312.3216	78281.87583	87981.00993	0.522271	0.0729	0.1395	0.48266	0.47861	0.60686	0.52271	3.80E-06	***
AMP	C00020	NT	C13-08	10	114003.6669	27734.57707	100741.9219	0.918311	0.2274	0.2476	1.15792	0.89152	0.70549	0.91831	0.00241	**
AMP	C00020	I3sg2	C13-08	10	0	3389.99559	5433.87439	0.019402	0.0188	0.9677	0	0.02073	0.03748	0.0194	0.00241	**
Arg-Succ	C03406	NT	C12 PARENT	10	154869.1345	121329.099	132188.2529	74.11638	9.4032	0.1269	65.3486	72.9537	84.0469	74.1164	0.03572	*
Arg-Succ	C03406	I3sg2	C12 PARENT	10	109555.3749	97272.36	89336.49916	93.76109	5.5617	0.0593	91.9605	100	89.3228	93.7611	0.03572	*
Arg-Succ	C03406	NT	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA	
Arg-Succ	C03406	I3sg2	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA	
Arg-Succ	C03406	NT	C13-02	10	59486.2517	37155.74661	17774.90698	19.5812	7.302	0.3729	25.1008	22.3413	11.3015	19.5812	0.06552	
Arg-Succ	C03406	I3sg2	C13-02	10	9577.742671	0	10678.84233	6.238911	5.5617	0.8915	0.803953	0	10.6772	6.23891	0.06552	
Arg-Succ	C03406	NT	C13-03	10	22633.90388	7824.963914	7315.981398	6.302415	2.8131	0.4464	9.5506	4.70505	4.65159	6.30241	0.01784	*
Arg-Succ	C03406	I3sg2	C13-03	10	0	0	0	0	0	NA	0	0	0	0	0.01784	*
Asn	C00152	NT	C12 PARENT	4	2780582.06	2527489.417	2408666.759	70.05004	0.4372	0.0062	69.8363	70.553	69.7608	70.05	0.00073	***
Asn	C00152	I3sg2	C12 PARENT	4	1951541.419	2320789.327	2136092.36	84.54039	2.6468	0.0313	86.4596	81.5209	85.6406	84.5404	0.00073	***
Asn	C00152	NT	C13-01	4	60378.09884	88608.12795	57054.03704	1.880764	0.5177	0.2753	1.51644	2.47343	1.65242	1.88076	0.00326	**
Asn	C00152	I3sg2	C13-01	4	0	0	0	0	0	NA	0	0	0	0	0.00326	**
Asn	C00152	NT	C13-02	4	603494.3708	454848.7177	430201.5251	13.43788	1.4937	0.1112	15.1572	12.6968	12.4597	13.4379	0.00532	**
Asn	C00152	I3sg2	C13-02	4	194940.7493	191852.1134	199293.3197	7.788561	0.9646	0.1239	8.6365	6.73907	7.99011	7.78856	0.00532	**
Asn	C00152	NT	C13-03	4	417959.7235	363634.1368	430798.4371	11.04163	1.2551	0.1137	10.4973	10.1506	12.477	11.0416	0.03321	**
Asn	C00152	I3sg2	C13-03	4	110689.756	251785.4531	158865.06	6.705826	1.9916	0.297	4.90391	8.84431	3.24888	6.70583	0.03321	**
Asn	C00152	NT	C13-04	4	119159.5891	147815.4756	126029.1692	3.589683	0.5691	0.1585	2.99278	4.12616	3.65011	3.58968	0.06172	
Asn	C00152	I3sg2	C13-04	4	0	82435.62517	0	0.965222	1.6718	1.7321	0	0.289567	0	0.96522	0.06172	
Asp	C00049	NT	C12 PARENT	4	32154892.03	24542365.12	27877575	60.42025	0.7794	0.0129	59.5763	60.5049	61.1249	60.4202	0.00176	**
Asp	C00049	I3sg2	C12 PARENT	4	27165058.1	33319660	30769846.5	66.01317	1.0518	0.0159	64.8543	66.2777	66.9075	66.0132	0.00176	**
Asp	C00049	NT	C13-01	4	1913663.24	1528256.638	1481734.922	3.520717	0.2603	0.0739	3.54562	3.76765	3.24888	3.52072	0.40263	
Asp	C00049	I3sg2	C13-01	4	1540355.686	1914619.888	1631559.476	3.677892	0.1304	0.0354	3.67747	3.80846	3.54774	3.67789	0.40263	
Asp	C00049	NT	C13-02	4	9601040.366	6993917.662	7772719.579	17.35788	0.3863	0.0223	17.7887	17.2423	17.0426	17.3579	0.00937	**
Asp	C00049	I3sg2	C13-02	4	6813391.504	7879825.78	7094103.767	15.78877	0.4319	0.0274	16.2664	15.6741	15.4258	15.7888	0.00937	**
Asp	C00049	NT	C13-03	4	7326864.243	5248642.084	6027509.461	13.2436	0.3187	0.0241	13.5752	12.9396	13.216	13.2436	0.00146	**
Asp	C00049	I3sg2	C13-03	4	4741028.854	5311437.832	4859928.939	10.81724	0.4344	0.0402	11.3188	10.5652	10.5677	10.8172	0.00146	**
Asp	C00049	NT	C13-04	4	2976151.084	2249407.875	2448016.15	5.475759	0.095	0.0173	5.51419	5.54552	5.36757	5.47576	9.06E-05	***
Asp	C00049	I3sg2	C13-04	4	1626421.33	1847271.5	1633223.763	3.702934	0.1676	0.0453	3.88295	3.67449	3.55136	3.70293	9.06E-05	***
ATP	C00002	NT	C12 PARENT	10	11153490.97	3874541.05	7495432.742	11.56215	0.1926	0.0167	11.7839	11.4661	11.4364	11.5621	1.92E-06	***
ATP																

CDP	C00112	NT	C12 PARENT	9	342163.5467	142841.224	412015.4535	21.10738	3.0952	0.1466	17.5984	23.4497	22.274	21.1074	5.30E-06	***
CDP	C00112	I3sg2	C12 PARENT	9	1037198.056	1974211.838	1922720.942	81.62394	0.8824	0.1008	81.4436	80.8456	82.5826	81.6239	5.30E-06	***
CDP	C00112	NT	C13-04	9	21175.25282	0	3391.990307	0.244427	0.5829	1.3735	1.0891	0	0.18418	0.42443	0.27582	
CDP	C00112	I3sg2	C13-04	9	0	0	0	0	0	NA	0	0	0	0	0.27582	
CDP	C00112	NT	C13-05	9	972910.9486	324689.0263	916896.3911	51.0428	1.9615	0.0384	50.0395	53.303	49.7859	51.0428	2.80E-05	***
CDP	C00112	I3sg2	C13-05	9	226952.6521	429290.4146	332477.235	16.56031	1.9783	0.1195	17.8209	17.5798	14.2802	16.5603	2.80E-05	***
CDP	C00112	NT	C13-06	9	142241.7651	24284.8352	105696.1001	5.680585	1.6653	0.2932	7.31589	3.98675	5.73912	5.68059	0.0047	**
CDP	C00112	I3sg2	C13-06	9	0	0	10053.84008	0.14394	0.2493	1.7321	0	0	0.43182	0.14394	0.0047	**
CDP	C00112	NT	C13-07	9	296415.4183	92937.10611	247893.2693	14.65426	1.0341	0.0706	15.2455	15.2571	13.4602	14.6543	0.00011	***
CDP	C00112	I3sg2	C13-07	9	9365.669884	20596.69446	62987.87546	1.428085	1.1075	0.7755	0.73542	0.84345	2.70539	1.42809	0.00011	***
CDP	C00112	NT	C13-08	9	169379.2804	24386.35081	157584.9338	7.090551	2.6747	0.3772	8.71164	4.00342	8.55659	7.09055	0.01188	*
CDP	C00112	I3sg2	C13-08	9	0	17855.13451	0	0.243727	0.4221	1.7321	0	0.73118	0	0.24373	0.01188	*
CDP-choline	C00307	NT	C12 PARENT	14	51199.42216	34520.61545	51263.66913	45.13635	4.7334	0.1049	50.316	41.0355	44.0576	45.1364	8.60E-05	***
CDP-choline	C00307	I3sg2	C12 PARENT	14	252003.3265	315878.1802	257904.9199	90.22573	0.9872	0.1009	89.1182	91.0131	90.5459	90.2257	8.60E-05	***
CDP-choline	C00307	NT	C13-05	14	47230.61305	47362.33117	57974.32964	50.84711	5.0212	0.0988	46.4157	56.3008	49.8249	50.8471	0.00016	***
CDP-choline	C00307	I3sg2	C13-05	14	30771.04361	31190.80575	26928.27598	9.774268	0.9872	0.101	10.8818	8.98692	9.45405	9.77427	0.00016	***
CDP-choline	C00307	NT	C13-06	14	1435.212739	0	2101.795659	1.072265	0.9495	0.8855	1.41045	0	1.80635	1.07227	0.12211	*
CDP-choline	C00307	I3sg2	C13-06	14	0	0	0	0	0	NA	0	0	0	0	0.12211	*
CDP-choline	C00307	NT	C13-07	14	1890.49908	2240.840415	5016.34876	2.944274	1.2505	0.4247	1.85788	2.66374	4.3112	2.94427	0.01512	*
CDP-choline	C00307	I3sg2	C13-07	14	0	0	0	0	0	NA	0	0	0	0	0.01512	*
CDP-EtA	C00570	NT	C12 PARENT	11	314941.3469	250842.9926	303881.9018	26.72105	2.6981	0.101	29.7952	25.6217	24.7462	26.721	8.21E-06	***
CDP-EtA	C00570	I3sg2	C12 PARENT	11	1140422.223	1206247.884	1258452.954	86.10185	2.2675	0.0263	83.5117	87.7284	87.0655	86.1018	8.21E-06	***
CDP-EtA	C00570	NT	C13-05	11	498388.0796	458125.7546	612544.8277	47.94205	1.6892	0.0352	47.1504	46.7941	49.8817	47.942	2.07E-05	***
CDP-EtA	C00570	I3sg2	C13-05	11	209205.8017	159116.0998	177326.611	13.05346	1.9934	0.1527	15.3199	11.5722	12.2683	13.0535	2.07E-05	***
CDP-EtA	C00570	NT	C13-06	11	75252.28874	58567.64887	94056.45694	6.920297	0.8561	0.1237	7.1193	5.98224	7.65935	6.9203	0.00015	***
CDP-EtA	C00570	I3sg2	C13-06	11	0	0	0	0	0	NA	0	0	0	0	0.00015	***
CDP-EtA	C00570	NT	C13-07	11	126283.0802	142637.1013	155509.2741	13.06002	1.3553	0.1038	11.9471	14.5693	12.6637	13.06	9.32E-05	***
CDP-EtA	C00570	I3sg2	C13-07	11	5501.689553	9616.189097	9630.352145	0.589507	0.1625	0.2756	0.40288	0.69937	0.66627	0.58951	9.32E-05	***
CDP-EtA	C00570	NT	C13-08	11	42154.01349	68851.45584	62002.53588	5.356584	1.5454	0.2885	3.98801	7.03266	5.04909	5.35658	0.00534	**
CDP-EtA	C00570	I3sg2	C13-08	11	10454.15832	0	0	0.255182	0.442	1.7321	0.76554	0	0	0.25518	0.00534	**
Cit	C00158	NT	C12 PARENT	6	47066543.3	38357352.27	40888529.53	33.31976	1.553	0.0466	32.9101	35.0635	32.0127	33.3198	0.00237	**
Cit	C00158	I3sg2	C12 PARENT	6	31344292.04	37067381.11	31842270.85	41.03751	1.1792	0.0287	41.1984	42.128	39.7862	41.0375	0.00237	**
Cit	C00158	NT	C13-01	6	2679997.995	2347067.565	2331274.55	1.947667	0.1716	0.0881	1.87392	2.14386	1.82521	1.94767	0.03425	*
Cit	C00158	I3sg2	C13-01	6	2286428.182	2289109.852	1861924.099	2.644433	0.3414	0.1291	3.00524	2.60163	2.32643	2.64443	0.03425	*
Cit	C00158	NT	C13-02	6	48486708.79	35869266.54	46288822.54	34.30254	1.7725	0.0517	33.9032	32.7638	36.2407	34.3025	0.15639	**
Cit	C00158	I3sg2	C13-02	6	23870961.18	27619505.41	26868667.13	32.11253	1.2638	0.0394	31.3756	31.3902	33.5718	32.1125	0.15639	**
Cit	C00158	NT	C13-03	6	9568294.807	7308421.847	8268168.529	6.613144	0.1213	0.0183	6.6904	6.67568	6.47336	6.61314	0.91247	**
Cit	C00158	I3sg2	C13-03	6	5135351.296	5757709.101	5210036.706	6.601137	0.1299	0.0197	6.74981	6.54378	6.50982	6.60114	0.91247	**
Cit	C00158	NT	C13-04	6	18014539.78	13019728.79	15488945.41	12.20514	0.3584	0.0294	12.5962	11.8925	12.1267	12.2051	0.0005	***
Cit	C00158	I3sg2	C13-04	6	7604973.012	8475481.755	7738016.032	9.765634	0.2002	0.0205	9.99584	9.63259	9.66847	9.76563	0.0005	***
Cit	C00158	NT	C13-05	6	12970655.64	9698770.316	10829165.65	8.802306	0.2996	0.034	9.06942	8.85907	8.47843	8.80231	0.00033	***
Cit	C00158	I3sg2	C13-05	6	4593304.519	5451387.961	5121011.484	6.248427	0.2418	0.0387	6.03736	6.19563	6.51229	6.24843	0.00033	***
Cit	C00158	NT	C13-06	6	4228560.597	2877782.661	3631214.289	2.80944	0.1666	0.0593	2.95672	2.62863	2.84297	2.80944	0.00031	***
Cit	C00158	I3sg2	C13-06	6	1246087.251	1326987.414	1300548.144	1.590331	0.0715	0.0449	1.63783	1.50815	1.62501	1.59033	0.00031	***
CMP	C00055	NT	C12 PARENT	9	20159.83598	12895.17299	21926.27547	20.02868	8.1776	0.4083	20.7754	27.8073	11.5033	20.0287	0.00019	***
CMP	C00055	I3sg2	C12 PARENT	9	231756.445	257536.5691	338333.5722	90.27715	4.2335	0.0469	93.3647	85.4512	92.0156	90.2771	0.00019	***
CMP	C00055	NT	C13-05	9	76877.03314	33478.10048	168682.676	79.97132	8.1776	0.1023	79.2246	72.1927	88.4967	79.9713	0.00019	***
CMP	C00055	I3sg2	C13-05	9	16470.69004	43847.90852	29357.97245	9.722853	4.2335	0.4354	6.63533	14.5488	7.9844	9.72285	0.00019	***
CoA	C00010	NT	C12 PARENT	21	72274.224	31411.856	51889.67099	24.2901	5.1202	0.2108	21.4372	30.2012	21.2319	24.2901	0.0031	**
CoA	C00010	I3sg2	C12 PARENT	21	42100.59733	74496.73368	83944.1265	45.93972	2.8922	0.063	46.9564	42.6765	48.1862	45.9397	0.0031	**
CoA	C00010	NT	C13-01	21	0	0	0	0	0	NA	0	0	0	0	NA	
CoA	C00010	I3sg2	C13-01	21	0	0	0	0	0	NA	0	0	0	0	NA	
CoA	C00010	NT	C13-02	21	1479.812883	0	671.1277592	0.237845	0.2218	0.9324	0.43893	0	0.27461	0.23784	0.13677	**
CoA	C00010	I3sg2	C13-02	21	0	0	0	0	0	NA	0	0	0	0	0.13677	**
CoA	C00010	NT	C13-03	21	2018.328003	912.6349812	2633.392324	0.851211	0.2405	0.2825	0.59866	0.87746	1.07752	0.85121	0.8068	**
CoA	C00010	I3sg2	C13-03	21	476.6144711	2407.309646	654.1319527	0.762046	0.54	0.7086	0.53159	1.37906	0.37549	0.76205	0.8068	**
CoA	C00010	NT	C13-04	21	5022.036109	1502.796088	3348.834878	1.434905	0.0603	0.042	1.48958	1.44487	1.37026	1.43491	0.20577	**
CoA	C00010	I3sg2	C13-04	21	2458.733408	3415.434371	2419.839705	2.029318	0.6796	0.3349	2.74232	1.95658	1.38905	2.02932	0.20577	**
CoA	C00010	NT	C13-05	21	209829.9316	60616.66312	152378.3528	60.95574	2.3176	0.038	62.2375	58.2803	62.3493	60.9557	0.00655	**
CoA	C00010	I3sg2	C13-05	21	43381.93806	93219.60993	87189.53723	50.6123	2.5553	0.0505	48.3856	53.4021	50.0492	50.6123	0.00655	**
CoA	C00010	NT	C13-06	21	41029.79182	8455.921928	27287.60631	10.48841	2.1033	0.2005	12.1698	8.13001	11.1654	10.4884	0.00108	**
CoA	C00010	I3sg2	C13-06	21	0	847.3559085	0	0.161806	0.2803	1.7321	0	0.48542	0	0.16181	0.00108	**
CoA	C00010	NT	C13-07	21	4086.45016	361.4863643	2881.432794	0.912881	0.4899	0.5366	1.21208	0.34755	1.17901	0.91288	0.03204	*
CoA	C00010	I3sg2	C13-07	21	0	0	0	0	0	NA	0	0	0	0	0.03204	*
CoA	C00010	NT	C13-08	21	1403.057867	747.399524	3304.147519	0.828909	0.4776	0.5761	0.41616	0.71859	1.35197	0.82891	0.55841	**
CoA	C00010	I3sg2	C13-08	21	1240.979794	175.1421288	0	0.494815	0.7718	1.5597	1.38411	0.10033	0	0.49482	0.55841	**
CoA	C00010	NT	C13-09	21	0	0	0	0	0	NA	0	0	0	0	NA	
CoA	C00010	I3sg2	C13-09	21	0	0	0	0	0	NA	0	0	0	0	NA	
Creatine	C00300	NT	C12 PARENT	4	410586112.7	384101393.7	436355417.9	95.10211	0.0773	8.00E-04						

CTP	C00063	I3sg2	C13-08	9	8264.586624	10716.62338	16337.84278	0.463173	0.0676	0.146	0.45747	0.39858	0.53347	0.46317	1.65E-06	***
Cystathionine	C02291	NT	C12 PARENT	7	4756593.125	3967319.001	3415265.563	89.62438	0.4559	0.0051	89.5498	90.113	89.2104	89.6244	4.81E-05	***
Cystathionine	C02291	I3sg2	C12 PARENT	7	455483.2297	479574.2859	443495.2845	99.53987	0.797	0.008	98.6196	100	100	99.5399	4.81E-05	***
Cystathionine	C02291	NT	C13-01	7	146989.5337	135401.8643	137680.5827	3.146383	0.4191	0.1332	2.76729	3.07549	3.59636	3.14638	0.00666	**
Cystathionine	C02291	I3sg2	C13-01	7	6375.476258	0	0	0.460132	0.797	1.7321	1.3804	0	0	0.46013	0.00666	**
Cystathionine	C02291	NT	C13-02	7	99762.45041	78290.00704	55511.03065	1.702149	0.224	0.1316	1.87817	1.77827	1.45001	1.70215	0.00019	***
Cystathionine	C02291	I3sg2	C13-02	7	0	0	0	0	0	NA	0	0	0	0	0.00019	***
Cystathionine	C02291	NT	C13-03	7	269762.2586	199488.3056	191980.8292	4.874851	0.2994	0.0614	5.07867	4.53114	5.01474	4.87485	9.40E-06	***
Cystathionine	C02291	I3sg2	C13-03	7	0	0	0	0	0	NA	0	0	0	0	9.40E-06	***
Cystathionine	C02291	NT	C13-04	7	38568.74879	22105.81386	27889.4185	0.652241	0.13	0.1994	0.72611	0.50211	0.7285	0.65224	0.00097	***
Cystathionine	C02291	I3sg2	C13-04	7	0	0	0	0	0	NA	0	0	0	0	0.00097	***
Cytosine	C00380	NT	C12 PARENT	4	259084.8789	299879.8578	345329.3249	70.00901	1.2287	0.0176	68.9109	69.7801	71.3361	70.009	1.87E-06	***
Cytosine	C00380	I3sg2	C12 PARENT	4	30990.03849	10554.20688	9793.809972	100	0	0	100	100	100	100	1.87E-06	***
Cytosine	C00380	NT	C13-02	4	73870.70082	81722.80387	81563.57589	18.50442	1.4681	0.0793	19.648	19.0164	16.8489	18.5044	2.60E-05	***
Cytosine	C00380	I3sg2	C13-02	4	0	0	0	0	0	NA	0	0	0	0	2.60E-05	***
Cytosine	C00380	NT	C13-03	4	43015.21862	48147.32923	57195.09877	11.48656	0.3083	0.0268	11.4411	11.2036	11.815	11.4866	3.45E-07	***
Cytosine	C00380	I3sg2	C13-03	4	0	0	0	0	0	NA	0	0	0	0	3.45E-07	***
F16BP	C00354	NT	C12 PARENT	6	32502.65739	58308.27656	83321.07041	2.034762	0.5201	0.2556	1.57157	1.93527	2.59744	2.03476	0.89559	***
F16BP	C00354	I3sg2	C12 PARENT	6	19928.70591	17726.72734	40901.60093	2.17588	1.6695	0.7673	0.99299	1.44911	4.08553	2.17588	0.89559	***
F16BP	C00354	NT	C13-05	6	56796.367	88064.74024	40982.09591	2.315565	0.9033	0.3901	2.74622	2.9229	1.27757	2.31556	0.01187	*
F16BP	C00354	I3sg2	C13-05	6	1049.230526	466.8480175	0	0.030148	0.027	0.8971	0.05228	0.03816	0	0.03015	0.01187	*
F16BP	C00354	NT	C13-06	6	1978867.208	2866546.808	3083507.437	95.64967	0.4924	0.0051	95.6822	95.1418	96.125	95.6497	0.09626	***
F16BP	C00354	I3sg2	C13-06	6	1985951.825	1205090.107	960230.5079	97.79397	1.6426	0.0168	98.9547	98.5127	95.9145	97.794	0.09626	***
G6P-F6P	C00085	NT	C12 PARENT	6	345243.0134	375248.3513	296311.9544	29.86638	5.8554	0.1961	29.8642	35.7228	24.0121	29.8664	0.02294	*
G6P-F6P	C00085	I3sg2	C12 PARENT	6	175040.5175	68975.68155	160580.1946	13.39372	5.3698	0.4009	18.1822	7.58808	14.4109	13.3937	0.02294	*
G6P-F6P	C00085	NT	C13-05	6	21723.5602	0	31392.28844	1.474352	1.3194	0.8949	1.87913	0	2.54393	1.47435	0.13297	**
G6P-F6P	C00085	I3sg2	C13-05	6	1121.911818	0	0	0.038846	0.0673	1.7321	0.11654	0	0	0.03885	0.13297	**
G6P-F6P	C00085	NT	C13-06	6	789077.0977	675195.2287	906305.6442	68.65926	4.5966	0.0669	68.2567	64.2772	73.444	68.6593	0.01203	**
G6P-F6P	C00085	I3sg2	C13-06	6	786539.1416	840025.2686	953719.9473	86.56744	5.4219	0.0626	81.7012	92.4119	85.5891	86.5674	0.01203	**
GDP	C00035	NT	C12 PARENT	10	196949.8239	77595.60437	236246.0346	8.49439	0.2015	0.0237	8.2635	8.63472	8.58495	8.49439	0.00061	***
GDP	C00035	I3sg2	C12 PARENT	10	223753.0024	460109.3592	441899.4849	16.57442	1.4172	0.0855	15.322	18.1129	16.2883	16.5744	0.00061	***
GDP	C00035	NT	C13-04	10	53041.69674	27756.59614	23131.09541	2.051588	1.1341	0.5528	2.22549	3.08871	0.84056	2.05159	0.03795	*
GDP	C00035	I3sg2	C13-04	10	0	3639.50146	0	0.047758	0.0827	1.7321	0	0.14327	0	0.04776	0.03795	*
GDP	C00035	NT	C13-05	10	1537423.441	614289.9815	1916444.424	67.50175	2.6725	0.0396	64.5063	68.3753	69.6417	67.5017	0.00387	**
GDP	C00035	I3sg2	C13-05	10	1211688.185	1973897.476	2217639.402	80.80686	2.7556	0.0341	82.9734	77.7054	81.7418	80.8069	0.00387	**
GDP	C00035	NT	C13-06	10	414090.7536	132192.3424	406196.5155	15.61504	1.5237	0.0976	17.3742	14.7102	14.7608	15.615	0.00034	***
GDP	C00035	I3sg2	C13-06	10	24892.63078	102584.7758	53443.05475	2.570963	1.2777	0.497	1.70458	4.0384	1.9699	2.57096	0.00034	***
GDP	C00035	NT	C13-07	10	180041.3572	45740.9924	153252.065	6.071028	1.3065	0.2152	7.55407	5.08999	5.56903	6.07103	0.00129	**
GDP	C00035	I3sg2	C13-07	10	0	0	0	0	0	NA	0	0	0	0	0.00129	**
GDP	C00035	NT	C13-08	10	1822.653238	1070.83683	16593.52879	0.266209	0.2924	1.0985	0.07647	0.11916	0.60299	0.26621	0.19	
GDP	C00035	I3sg2	C13-08	10	0	0	0	0	0	NA	0	0	0	0	0.19	
Glc	C00031	NT	C12 PARENT	6	0	105757.4095	105917.2104	0.688196	0.602	0.8747	0	0.94775	1.11684	0.6882	0.57672	**
Glc	C00031	I3sg2	C12 PARENT	6	329490.87	269551.3128	0	1.081933	0.949	0.8772	1.7736	1.4722	0	1.08193	0.57672	**
Glc	C00031	NT	C13-05	6	134172.9721	123311.0218	208918.5475	1.762712	0.5803	0.3292	1.98015	1.10506	2.20293	1.76271	0.5303	**
Glc	C00031	I3sg2	C13-05	6	256832.6984	277902.1868	379171.2788	1.52553	0.1471	0.0964	1.38249	1.51781	1.67629	1.52553	0.5303	**
Glc	C00031	NT	C13-06	6	6641734.685	10929742.1	9168821.883	97.54909	0.7533	0.0077	98.0199	97.9472	96.6802	97.5491	0.81849	**
Glc	C00031	I3sg2	C13-06	6	17991180.45	17761984.31	22240511.39	97.39254	0.8107	0.0083	96.8439	97.01	98.3237	97.3925	0.81849	**
GlcNAc-6P	C00357	NT	C12 PARENT	8	146887.9845	135669.4611	128856.9008	26.3888	2.2596	0.0856	25.0495	28.9977	25.1193	26.3888	0.8016	**
GlcNAc-6P	C00357	I3sg2	C12 PARENT	8	64682.26962	130383.2455	57805.61833	27.8078	8.7079	0.319	31.0359	34.6127	17.7749	27.8078	0.8016	**
GlcNAc-6P	C00357	NT	C13-06	8	196234.3376	136875.2726	202189.5442	34.00493	5.1044	0.1499	33.4647	29.2554	39.4147	34.0049	0.45703	**
GlcNAc-6P	C00357	I3sg2	C13-06	8	66931.93631	129321.8658	179986.6651	40.59701	12.8199	0.3158	32.1153	34.3309	55.3448	40.597	0.45703	**
GlcNAc-6P	C00357	NT	C13-08	8	243269.3107	195318.6719	181933.8075	39.56627	3.5533	0.0898	41.4858	41.7469	35.466	39.5663	0.08775	**
GlcNAc-6P	C00357	I3sg2	C13-08	8	76797.25573	116987.0551	87417.27	31.59519	5.0061	0.1584	36.8489	31.0564	26.8803	31.5952	0.08775	**
Gln	C00064	NT	C12 PARENT	5	764970010.8	657922508.5	675408713.7	98.87122	0.0393	4.00E-04	98.882	98.8277	98.904	98.8712	0.0002	***
Gln	C00064	I3sg2	C12 PARENT	5	604357980.9	620999834.9	653120321.1	99.55686	0.0828	8.00E-04	99.4906	99.6497	99.5303	99.5569	0.0002	***
Gln	C00064	NT	C13-01	5	342615.3006	1241900.351	538678.7454	0.103239	0.0742	0.7186	0.04429	0.18655	0.07888	0.10324	0.51392	**
Gln	C00064	I3sg2	C13-01	5	717410.8897	0	483357.1542	0.06392	0.0597	0.9332	0.1181	0	0.07366	0.06392	0.51392	**
Gln	C00064	NT	C13-02	5	1507498.355	1478846.26	1846762.829	0.229145	0.0383	0.167	0.19486	0.22214	0.27043	0.22915	0.00049	***
Gln	C00064	I3sg2	C13-02	5	0	0	0	0	0	NA	0	0	0	0	0.00049	***
Gln	C00064	NT	C13-03	5	1790163.751	1476159.045	1569205.443	0.227642	0.0052	0.0227	0.2314	0.22174	0.22979	0.22764	0.00511	***
Gln	C00064	I3sg2	C13-03	5	877160.2682	628832.4014	1019889.882	0.133576	0.0288	0.2158	0.1444	0.10091	0.15542	0.13358	0.00511	***
Gln	C00064	NT	C13-04	5	2990589.3	2144450.377	2127125.616	0.34006	0.0406	0.1195	0.38657	0.32212	0.31149	0.34006	0.00261	**
Gln	C00064	I3sg2	C13-04	5	881634.7157	1100133.557	1177645.293	0.167045	0.019	0.1139	0.14514	0.17653	0.17946	0.16704	0.00261	**
Gln	C00064	NT	C13-05	5	2018264.809	1462943.701	1402957.698	0.228694	0.0288	0.1259	0.26089	0.21975	0.20544	0.22869	0.00186	**
Gln	C00064	I3sg2	C13-05	5	618163.6708	453947.4204	401573.0671	0.078601	0.0209	0.2657	0.10176	0.07284	0.0612	0.0786	0.00186	**
Glu	C00025	NT	C12 PARENT	5	286803812.2	242392072	229857793	58.17576	0.2071	0.0036	58.0374	58.0759	58.4139	58.1758	5.89E-06	***
Glu	C00025	I3sg2	C12 PARENT	5	229311806	264495610.6	252734443.4	66.08472	0.379	0.0057	65.6946	66.1081	66.4515	66.0847	5.89E-06	***
Glu	C00025	NT	C13-01	5	6957775.429	6118268.567	5933620.525	1.460597	0.0502	0.0344	1.40797	1.46591	1.50791	1.4606	0.00083	***
Glu	C00025															

MTA	C00170	I3sg2	C12 PARENT	11	494754.9977	245386.0702	147472.67	28.11933	1.4642	0.0521	26.4611	28.6629	29.234	28.1193	3.21E-05	***
MTA	C00170	NT	C13-01	11	0	0	0	0	0	NA	0	0	0	0	0	NA
MTA	C00170	I3sg2	C13-01	11	0	0	0	0	0	NA	0	0	0	0	0	NA
MTA	C00170	NT	C13-02	11	1346.837799	38517.7856	41918.23727	0.559459	0.3429	0.6129	0.20902	0.57509	0.89427	0.55946	0.80689	
MTA	C00170	I3sg2	C13-02	11	24384.85836	0	0	0.434727	0.753	1.7321	1.30418	0	0	0	0.43473	0.80689
MTA	C00170	NT	C13-03	11	0	56044.72264	43625.49116	0.589157	0.5124	0.8697	0	0.83678	0.93069	0.58916	0.60296	
MTA	C00170	I3sg2	C13-03	11	15569.66153	6808.224729	3273.058414	0.758932	0.0972	0.128	0.83272	0.79525	0.64883	0.75893	0.60296	
MTA	C00170	NT	C13-04	11	0	89206.18664	65825.84868	0.912068	0.7907	0.8669	0	1.3319	1.4043	0.91207	0.26091	
MTA	C00170	I3sg2	C13-04	11	9330.9749	3026.356096	0	0.284184	0.2566	0.9031	0.49905	0.3535	0	0.28418	0.26091	
MTA	C00170	NT	C13-05	11	464212.5647	4615728.548	3234062.809	69.98364	1.7822	0.0255	72.0411	68.9157	68.9941	69.9836	0.87814	
MTA	C00170	I3sg2	C13-05	11	1311621.981	600889.4735	353710.8598	70.15179	0.0356	5.00E-04	70.1498	70.1883	70.1172	70.1518	0.87814	
MTA	C00170	NT	C13-06	11	89868.22534	857388.7429	556183.6612	12.87113	1.0424	0.081	13.9466	12.8014	11.8654	12.8711	4.20E-05	***
MTA	C00170	I3sg2	C13-06	11	14081.0032	0	0	0.251033	0.4348	1.7321	0.7531	0	0	0.25103	4.20E-05	***
MTA	C00170	NT	C13-07	11	22485.55268	291280.8773	205673.7298	4.075431	0.5078	0.1246	3.48953	4.34901	4.38776	4.07543	0.00016	***
MTA	C00170	I3sg2	C13-07	11	0	0	0	0	0	NA	0	0	0	0	0.00016	***
MTA	C00170	NT	C13-08	11	0	58705.71201	39633.82419	0.574015	0.4974	0.8664	0	0.87651	0.84553	0.57401	0.11625	
MTA	C00170	I3sg2	C13-08	11	0	0	0	0	0	NA	0	0	0	0	0.11625	
NAD+	C00003	NT	C12 PARENT	21	303730.8281	274333.5146	245315.7587	3.517316	0.0802	0.0228	3.47981	3.46276	3.60938	3.51732	0.00049	***
NAD+	C00003	I3sg2	C12 PARENT	21	224896.6408	38199.3709	34526.99424	6.943981	0.5672	0.0817	6.7687	6.48514	7.5781	6.94398	0.00049	***
NAD+	C00003	NT	C13-04	21	34484.85254	34335.15927	30490.39976	0.425698	0.0276	0.0648	0.39509	0.43339	0.44861	0.4257	0.80224	
NAD+	C00003	I3sg2	C13-04	21	57944.42641	0	0	0.581317	1.0069	1.7321	1.74395	0	0	0.58132	0.80224	
NAD+	C00003	NT	C13-05	21	1703257.379	1555179.266	1287179.868	19.36091	0.3704	0.0191	19.514	19.6302	18.9385	19.3609	0.00073	***
NAD+	C00003	I3sg2	C13-05	21	1216926.6	192154.8777	175903.5787	35.952	3.0492	0.0848	36.6258	32.6223	38.6079	35.952	0.00073	***
NAD+	C00003	NT	C13-06	21	0	18961.37842	2078.901175	0.089975	0.1303	1.4477	0	0.23934	0.03059	0.08998	0.69522	
NAD+	C00003	I3sg2	C13-06	21	5139.808954	0	0	0.051564	0.0893	1.7321	0.15469	0	0	0.05156	0.69522	
NAD+	C00003	NT	C13-07	21	138719.1735	104894.1186	107107.1045	1.496399	0.1494	0.0999	1.58929	1.32402	1.57589	1.4964	0.04744	*
NAD+	C00003	I3sg2	C13-07	21	39754.70447	1088.788535	1473.774223	0.56827	0.5485	0.9651	1.1965	0.18484	0.32347	0.56827	0.04744	*
NAD+	C00003	NT	C13-08	21	151389.186	132588.4739	112196.8728	1.686271	0.0433	0.0257	1.73445	1.67359	1.65077	1.68627	0.46349	
NAD+	C00003	I3sg2	C13-08	21	81325.28907	0	3963.223201	1.105835	1.2408	1.122	2.44764	0	0.86986	1.10583	0.46349	
NAD+	C00003	NT	C13-09	21	234473.2712	171744.6571	184405.1432	2.522453	0.3074	0.1219	2.68633	2.16784	2.71319	2.52245	0.94585	
NAD+	C00003	I3sg2	C13-09	21	90873.03329	25868.45854	782.4153056	2.432813	1.2262	0.874	2.735	4.39171	0.17173	2.43281	0.94585	
NAD+	C00003	NT	C13-10	21	4977614.648	4625650.275	3969148.889	57.93795	0.7881	0.0136	57.0279	58.3871	58.3988	57.9379	0.05622	
NAD+	C00003	I3sg2	C13-10	21	1557238.705	329049.2939	224855.2103	50.69437	4.6453	0.0916	46.8681	55.863	49.352	50.6944	0.05622	
NAD+	C00003	NT	C13-11	21	839987.8241	719582.4931	599258.6269	9.174515	0.411	0.0448	9.62364	9.0829	8.817	9.17452	0.00079	***
NAD+	C00003	I3sg2	C13-11	21	35550.97704	2668.305577	14110.30229	1.539984	1.3832	0.8982	1.06998	0.453	3.09698	1.53998	0.00079	***
NAD+	C00003	NT	C13-12	21	305889.8427	233206.2792	223367.6471	3.244877	0.2828	0.0871	3.50454	2.94364	3.28645	3.24488	0.00012	***
NAD+	C00003	I3sg2	C13-12	21	12945.29477	0	0	0.129871	0.2249	1.7321	0.38961	0	0	0.12987	0.00012	***
NAD+	C00003	NT	C13-13	21	38830.5185	51912.08224	36075.04397	0.543638	0.1058	0.1946	0.44488	0.65526	0.53078	0.54364	0.00088	***
NAD+	C00003	I3sg2	C13-13	21	0	0	0	0	0	NA	0	0	0	0	0.00088	***
NAD+	C00003	NT	C13-14	21	0	0	0	0	0	NA	0	0	0	0	0	NA
NAD+	C00003	I3sg2	C13-14	21	0	0	0	0	0	NA	0	0	0	0	0	NA
NADH	C00004	NT	C12 PARENT	21	12377.96966	3927.043978	5172.943273	1.936284	0.2146	0.1108	2.17868	1.85947	1.77071	1.93628	0.81387	
NADH	C00004	I3sg2	C12 PARENT	21	28498.25872	0	0	2.587647	4.4819	1.7321	7.76294	0	0	2.58765	0.81387	
NADH	C00004	NT	C13-04	21	736.3550367	0	3150.273536	0.402651	0.5887	1.4622	0.12961	0	1.07835	0.40265	0.97422	
NADH	C00004	I3sg2	C13-04	21	0	1448.966055	0	0.384991	0.6668	1.7321	0	1.15497	0	0.38499	0.97422	
NADH	C00004	NT	C13-05	21	93845.96316	43792.68171	65604.69894	19.90355	3.0556	0.1535	16.518	20.736	22.4567	19.9036	0.00093	***
NADH	C00004	I3sg2	C13-05	21	138085.4297	53815.04762	52846.89212	40.46067	2.6646	0.0659	37.6145	42.896	40.8714	40.4607	0.00093	***
NADH	C00004	NT	C13-06	21	0	0	0	0	0	NA	0	0	0	0	0	NA
NADH	C00004	I3sg2	C13-06	21	0	0	0	0	0	NA	0	0	0	0	0	NA
NADH	C00004	NT	C13-07	21	3334.406578	0	415.9177419	0.243089	0.3061	1.2594	0.5869	0	0.14237	0.24309	0.57841	
NADH	C00004	I3sg2	C13-07	21	7157.658044	0	0	0.649917	1.1257	1.7321	1.94795	0	0	0.64992	0.57841	
NADH	C00004	NT	C13-08	21	10328.98913	5480.487155	1954.309969	1.694007	0.969	0.572	1.81803	2.59503	0.66897	1.69401	0.50342	
NADH	C00004	I3sg2	C13-08	21	10018.51218	0	0	0.909683	1.5756	1.7321	2.72905	0	0	0.90968	0.50342	
NADH	C00004	NT	C13-09	21	0	977.1455693	0	0.154227	0.2671	1.7321	0	0.46268	0	0.15423	0.49312	
NADH	C00004	I3sg2	C13-09	21	5609.609164	0	132.5405938	0.543522	0.8542	1.5716	1.52806	0	0.10251	0.54352	0.49312	
NADH	C00004	NT	C13-10	21	408719.6142	131697.3467	182436.4044	65.58239	5.5058	0.084	71.9397	62.359	62.4484	65.5824	0.03863	*
NADH	C00004	I3sg2	C13-10	21	177092.7842	70190.60656	71940.90808	53.27594	4.3639	0.0819	48.2402	55.949	55.6386	53.2759	0.03863	*
NADH	C00004	NT	C13-11	21	26671.97196	23260.14652	25590.0142	8.155955	3.2025	0.3927	4.6946	11.0137	8.75953	8.15595	0.0119	*
NADH	C00004	I3sg2	C13-11	21	644.2092097	0	0	0.058494	0.1013	1.7321	0.17548	0	0	0.05849	0.0119	*
NADH	C00004	NT	C13-12	21	12126.67411	2057.189079	7814.716677	1.927842	0.8691	0.4508	2.13444	0.97408	2.675	1.92784	0.55323	
NADH	C00004	I3sg2	C13-12	21	0	0	4379.935545	1.129138	1.9557	1.7321	0	0	3.38741	1.12914	0.55323	
NADH	C00004	NT	C13-13	21	0	0	0	0	0	NA	0	0	0	0	0	NA
NADH	C00004	I3sg2	C13-13	21	0	0	0	0	0	NA	0	0	0	0	0	NA
NADP+	C00006	NT	C12 PARENT	21	45102.28408	14966.78807	30033.34009	3.896477	0.4632	0.1189	4.06124	3.37339	4.2548	3.89648	0.00395	**
NADP+	C00006	I3sg2	C12 PARENT	21	24456.46294	6383.555441	3783.749261	7.905163	1.0661	0.1349	7.87016	8.98834	6.85699	7.90516	0.00395	**
NADP+	C00006	NT	C13-04	21	5430.189272	2021.900264	3738.493186	0.491437	0.037	0.0753	0.48896	0.45572	0.52963	0.49144	0.17008	
NADP+	C00006	I3sg2	C13-04	21	1108.281886	1855.806115	1003.448555	1.595966	1.1444	0.7171	0.35665	2.61278	1.81847	1.59597	0.17008	
NADP+	C00006	NT	C13-05	21	212050.4372	85682.62868	136193.4918	19.23356	0.1211	0.0063	19.0941	19.3121	19.2944	19.2336	9.74E-07	***
NADP+	C00006	I3sg2	C13-05	21	115396.0997	25871.60252	19846.32274	36.50971	0.5887	0.0161	37.1348	36.4284	35.9659	36.5097	9.74E-07	***
NADP+	C00006	NT	C13-06	21	9707.074576	798.8753448	2981.233928	0.492161	0.3522	0.7157	0.87407	0.18006	0.42235	0.49216	0.17559	
NADP+	C00006	I3sg2	C13-06	21	1036.621105	0	0	0.111196	0.1926	1.7321	0.33359	0	0	0.1112	0.17559	
NADP+	C00006	NT	C13-07	21	11671.01771</											

NADPH	C00005	NT	C13-09	21	0	2623.333238	839.5728335	2.37186	1.2778	0.5387	0	3.27537	1.46835	2.37186	0.53259
NADPH	C00005	I3sg2	C13-09	21	1130.865587	0	0	2.264872	NA	NA	2.26487	0	0	2.26487	0.53259
NADPH	C00005	NT	C13-10	21	0	46683.65436	34501.02016	59.31335	1.4515	0.0245	0	58.287	60.3397	59.3133	0.40635
NADPH	C00005	I3sg2	C13-10	21	23925.0093	0	0	47.91646	NA	NA	47.9165	0	0	47.9165	0.40635
NADPH	C00005	NT	C13-11	21	0	6217.220338	5357.206417	8.565939	1.1362	0.1326	0	7.76253	9.36935	8.56594	0.12969
NADPH	C00005	I3sg2	C13-11	21	287.312622	0	0	0.575423	NA	NA	0.57542	0	0	0.57542	0.12969
NADPH	C00005	NT	C13-12	21	0	1869.107706	1841.080877	2.776796	0.6267	0.2257	0	2.33368	3.21991	2.7768	0.12615
NADPH	C00005	I3sg2	C13-12	21	0	0	0	0	0	NA	NA	0	0	0	0.12615
NADPH	C00005	NT	C13-13	21	0	446.4640993	196.5598637	0.450601	0.1511	0.3353	0	0.55743	0.34377	0.4506	0.13798
NADPH	C00005	I3sg2	C13-13	21	0	0	0	0	0	NA	NA	0	0	0	0.13798
Orotate	C00295	NT	C12 PARENT	5	549053.1506	93763.2654	797753.3236	80.10405	9.5865	0.1197	75.5027	91.1237	73.6857	80.104	0.33198
Orotate	C00295	I3sg2	C12 PARENT	5	149319.7257	376259.7277	523965.75	73.90617	1.688	0.0228	75.3118	74.3727	72.034	73.9062	0.33198
Orotate	C00295	NT	C13-01	5	0	0	0	0	0	NA	0	0	0	0	NA
Orotate	C00295	I3sg2	C13-01	5	0	0	0	0	0	NA	0	0	0	0	NA
Orotate	C00295	NT	C13-02	5	8855.434837	0	4098.618383	0.532108	0.6232	1.1712	1.21775	0	0.37858	0.53211	0.50977
Orotate	C00295	I3sg2	C13-02	5	0	3418.684209	0	0.225249	0.3901	1.7321	0	0.67575	0	0.22525	0.50977
Orotate	C00295	NT	C13-03	5	169287.9846	9133.410385	280791.1604	19.36385	9.1791	0.474	23.2795	8.87629	25.9357	19.3638	0.29498
Orotate	C00295	I3sg2	C13-03	5	48948.98402	126232.6314	203421.013	25.86859	1.8212	0.0704	24.6882	24.9515	27.966	25.8686	0.29498
Orotidine	X00006	NT	C12 PARENT	10	3930276.423	3077075.681	3049312.442	39.97892	0.8086	0.0202	39.0499	40.3625	40.5244	39.9789	7.33E-06 ***
Orotidine	X00006	I3sg2	C12 PARENT	10	1381921.676	1527798.735	1514755.417	61.15057	0.9154	0.015	61.304	60.1681	61.9796	61.1506	7.33E-06 ***
Orotidine	X00006	NT	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA
Orotidine	X00006	I3sg2	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA
Orotidine	X00006	NT	C13-04	10	99733.59091	60438.6763	34402.32023	0.746966	0.2698	0.3612	0.99092	0.79278	0.4572	0.74697	0.22699
Orotidine	X00006	I3sg2	C13-04	10	0	0	20856.48616	0.284463	0.4927	1.7321	0	0	0.85339	0.28446	0.22699
Orotidine	X00006	NT	C13-05	10	3858315.461	2897830.19	2856949.189	38.10471	0.2005	0.0053	38.3349	38.0113	37.9679	38.1047	3.19E-05 ***
Orotidine	X00006	I3sg2	C13-05	10	599490.8418	719250.0324	667351.6106	27.4087	0.8702	0.0318	26.5943	28.3257	27.3062	27.4087	3.19E-05 ***
Orotidine	X00006	NT	C13-06	10	174688.5001	168613.2685	114479.9233	1.822925	0.3533	0.1938	1.73564	2.21173	1.5214	1.82292	0.00173 **
Orotidine	X00006	I3sg2	C13-06	10	268.0560385	4425.382245	7705.67307	0.167156	0.1518	0.9083	0.01189	0.17428	0.31529	0.16716	0.00173 **
Orotidine	X00006	NT	C13-07	10	914242.1919	652848.402	658288.5372	8.798519	0.2636	0.03	9.08359	8.56352	8.74844	8.79852	0.01039 **
Orotidine	X00006	I3sg2	C13-07	10	147083.5637	154085.3646	105055.8974	5.630552	1.1759	0.2088	6.52484	6.06822	4.29859	5.63055	0.01039 **
Orotidine	X00006	NT	C13-08	10	855951.971	580199.5158	614526.142	8.093957	0.4514	0.0558	8.50444	7.61057	8.16685	8.09396	0.00062 ***
Orotidine	X00006	I3sg2	C13-08	10	125445.8806	133657.7961	128233.9549	5.358559	0.1789	0.0334	5.56496	5.26374	5.24698	5.35856	0.00062 ***
Orotidine	X00006	NT	C13-09	10	231554.5152	186592.1556	196678.9136	2.454002	0.1567	0.0638	2.30065	2.44756	2.6138	2.454	1.10E-05 ***
Orotidine	X00006	I3sg2	C13-09	10	0	0	0	0	0	NA	0	0	0	0	1.10E-05 ***
P-Creatine	C02305	NT	C12 PARENT	4	7719823.298	5598284.523	5267442.245	96.64185	0.1248	0.0013	96.7277	96.4987	96.6991	96.6419	0.00034 ***
P-Creatine	C02305	I3sg2	C12 PARENT	4	5568167.243	7424056.15	7773537.674	99.06916	0.3479	0.0035	98.6705	99.3116	99.2254	99.0692	0.00034 ***
P-Creatine	C02305	NT	C13-01	4	0	0	0	0	0	NA	0	0	0	0	NA
P-Creatine	C02305	I3sg2	C13-01	4	0	0	0	0	0	NA	0	0	0	0	NA
P-Creatine	C02305	NT	C13-02	4	261163.1878	203123.0336	179805.6743	3.358147	0.1248	0.0372	3.27232	3.50127	3.30085	3.35815	0.00034 ***
P-Creatine	C02305	I3sg2	C13-02	4	75025.31809	51462.01924	60685.48562	0.930837	0.3479	0.3738	1.32948	0.68841	0.77462	0.93084	0.00034 ***
P-Ser	C01005	NT	C12 PARENT	3	333869.2473	271392.7644	275905.2986	100	0	0	100	100	100	100	NA
P-Ser	C01005	I3sg2	C12 PARENT	3	115925.328	121519.5251	135731.1334	100	0	0	100	100	100	100	NA
PEP	C00074	NT	C12 PARENT	3	17207.28415	57845.30121	24400.04044	49.6151	38.9623	0.7853	4.64847	73.3496	70.8473	49.6151	0.58165
PEP	C00074	I3sg2	C12 PARENT	3	39780.09323	0	23704.63179	29.10512	44.7569	1.5378	80.6422	0	6.6732	29.1051	0.58165
PEP	C00074	NT	C13-03	3	352963.8667	21017.18412	10040.30403	50.3849	38.9623	0.7733	95.3515	26.6504	29.1527	50.3849	0.58165
PEP	C00074	I3sg2	C13-03	3	9549.052243	481936.8486	331516.6039	70.89488	44.7569	0.6313	19.3578	100	93.3268	70.8949	0.58165
Pro	C00148	NT	C12 PARENT	5	136010322.5	281272965.6	262603013.7	77.69581	0.4528	0.0058	77.2045	77.7866	78.0964	77.6958	0.00266 **
Pro	C00148	I3sg2	C12 PARENT	5	72771935.93	146915559.2	134546210.8	84.48372	1.7103	0.0202	82.8981	84.2571	86.296	84.4837	0.00266 **
Pro	C00148	NT	C13-01	5	3475451.141	6783876.627	6697931.762	1.946936	0.0621	0.0319	1.97279	1.87609	1.99192	1.94694	0.52871
Pro	C00148	I3sg2	C13-01	5	1765665.919	3774321.435	1097921.1	1.626716	0.8026	0.4934	2.01136	2.1646	0.70419	1.62672	0.52871
Pro	C00148	NT	C13-03	5	10961552.78	23367701.97	21334228.93	6.343074	0.1201	0.0189	6.22218	6.46238	6.34466	6.34307	0.00382 **
Pro	C00148	I3sg2	C13-03	5	4653706.671	8120389.84	7036443.303	4.823813	0.4197	0.087	5.30126	4.6571	4.51307	4.82381	0.00382 **
Pro	C00148	NT	C13-04	5	15975067.84	30530107.16	27813718.86	8.594271	0.4192	0.0488	9.06804	8.44316	8.27161	8.59427	0.00094 ***
Pro	C00148	I3sg2	C13-04	5	5508836.026	10174627.84	8794990.541	5.917195	0.325	0.0549	6.27538	5.83522	5.64098	5.91719	0.00094 ***
Pro	C00148	NT	C13-05	5	9746587.857	19641031.57	17806165.96	5.419908	0.119	0.022	5.53252	5.43177	5.29543	5.41991	0.00039 ***
Pro	C00148	I3sg2	C13-05	5	3084692.553	5380889.787	4436895.721	3.148554	0.3384	0.1075	3.51392	3.08598	2.84576	3.14855	0.00039 ***
Propanoyl-CoA	C00100	NT	C12 PARENT	24	3955.164866	84.9121385	3175.947621	15.9683	2.3343	0.1462	17.4158	13.2754	17.2137	15.9683	0.04359 **
Propanoyl-CoA	C00100	I3sg2	C12 PARENT	24	3202.020546	4512.53792	1636.673633	34.482	10.7613	0.3121	41.2604	40.112	22.0736	34.482	0.04359 **
Propanoyl-CoA	C00100	NT	C13-05	24	15977.98551	4856.920527	13521.8923	73.40987	3.1162	0.0424	70.356	76.5848	73.2889	73.4099	0.2631
Propanoyl-CoA	C00100	I3sg2	C13-05	24	4558.499084	6170.00104	5777.958048	63.8371	12.5611	0.1936	58.7396	54.8453	77.9264	63.8371	0.2631
Propanoyl-CoA	C00100	NT	C13-06	24	2777.06153	643.054555	1752.287872	10.62183	1.4278	0.1344	12.2283	10.1398	9.49743	10.6218	0.0088 **
Propanoyl-CoA	C00100	I3sg2	C13-06	24	0	567.2949459	0	1.680899	2.9114	1.7321	0	5.0427	0	1.6809	0.0088 **
S7P	C05382	NT	C12 PARENT	7	0	16712.42352	0	1.713823	2.9684	1.7321	0	5.14147	0	1.71382	0.02755 **
S7P	C05382	I3sg2	C12 PARENT	7	63357.14482	21710.69007	73571.00172	21.17172	9.49	0.4482	25.1384	10.342	28.0347	21.1717	0.02755 **
S7P	C05382	NT	C13-07	7	337053.7786	308339.0636	415717.0208	98.2818	2.9684	0.0302	100	94.8585	100	98.2862	0.02755 **
S7P	C05382	I3sg2	C13-07	7	188675.8189	188216.5074	188857.0853	78.82828	9.49	0.1204	74.8616	89.658	71.9653	78.8283	0.02755 **
SAM	C00019	NT	C12 PARENT	15	1103039.072	827596.9461	919892.1433	11.34093	0.2787	0.0246	11.0327	11.5754	11.4147	11.3409	7.86E-07 ***
SAM	C00019	I3sg2	C12 PARENT	15	910304.2508	1473277.91	1512450.178	25.96704	0.3935	0.0152	25.6778	25.8082	26.4152	25.967	7.86E-07 ***
SAM	C00019	NT	C13-01	15	0	0	0	0	0	NA	0	0	0	0	NA
SAM	C00019	I3sg2	C13-01	15	0	0	0	0	0	NA	0	0	0	0	NA
SAM	C00019	NT	C13-02	15	11521.89906	11748.02326	6540.168714	0.120238	0.0418	0.3477	0.11524	0.16432	0.08116	0.12024	0.00759 **
SAM	C00019	I3sg2	C13-02	15	0	0	0	0	0	NA	0	0	0	0	0.00759 **
SAM	C00019	NT	C13-03	15	95567.00488	73332.62102	85169.1669	1.012799	0.0517	0.051	0.95587	1.02568	1.05684		

Sorbitol	C00794	I3sg2	C12 PARENT	6	56007017.4	51552694.95	43401682	99.48357	0.1509	0.0015	99.6486	99.3525	99.4497	99.4836	0.08155
Sorbitol	C00794	NT	C13-01	6	0	0	0	0	0	NA	0	0	0	0	NA
Sorbitol	C00794	I3sg2	C13-01	6	0	0	0	0	0	NA	0	0	0	0	NA
Sorbitol	C00794	NT	C13-06	6	455863.4205	505944.7302	508909.4352	0.988119	0.3189	0.3228	0.70036	0.93295	1.33105	0.98812	0.08155
Sorbitol	C00794	I3sg2	C13-06	6	197523.5273	336003.2056	240169.5857	0.516434	0.1509	0.2923	0.35144	0.64755	0.55032	0.51643	0.08155
Succ	C00042	NT	C12 PARENT	4	1856443.661	1749518.206	1568777.467	69.107	2.7779	0.0402	70.1427	65.9601	71.2183	69.107	0.0105 *
Succ	C00042	I3sg2	C12 PARENT	4	1748343.847	1731113.494	2141830.114	81.9678	4.0451	0.0494	79.2061	80.0863	86.611	81.9678	0.0105 *
Succ	C00042	NT	C13-01	4	0	12866.03266	44981.46022	0.84237	1.0669	1.2665	0	0.48507	2.04204	0.84237	0.67176
Succ	C00042	I3sg2	C13-01	4	3865.199813	28805.44495	0	0.502577	0.7242	1.4409	0.17511	1.33262	0	0.50258	0.67176
Succ	C00042	NT	C13-02	4	429515.2905	508843.5269	334193.2741	16.86145	2.08	0.1234	16.2285	19.1843	15.1715	16.8614	0.04787 *
Succ	C00042	I3sg2	C13-02	4	289787.6908	257495.0815	178279.6496	10.75004	3.1261	0.29025	13.1284	11.9245	12.720925	10.75	0.04787 *
Succ	C00042	NT	C13-03	4	240346.8043	216848.5124	143854.8815	7.929107	1.293	0.1631	9.08111	8.17559	6.53062	7.92911	0.00906 **
Succ	C00042	I3sg2	C13-03	4	94427.8056	99563.44664	95495.95623	4.248551	0.3731	0.0878	4.27791	4.60609	3.86165	4.24855	0.00906 **
Succ	C00042	NT	C13-04	4	120362.3732	164313.6332	110967.1204	5.260076	0.8459	0.1608	4.54769	6.19493	5.03761	5.26008	0.01043 *
Succ	C00042	I3sg2	C13-04	4	70910.14675	44582.65878	57325.01078	2.531034	0.6038	0.2386	3.21248	2.06252	2.3181	2.53103	0.01043 *
Succinyl-CoA	C00091	NT	C12 PARENT	25	3683.568186	398.0889308	2173.385311	12.51194	1.2084	0.0966	12.3903	13.7765	11.369	12.5119	0.00036 ***
Succinyl-CoA	C00091	I3sg2	C12 PARENT	25	1956.935273	4772.094458	6001.986216	33.77916	3.0467	0.0902	31.3904	32.7367	37.2103	33.7792	0.00036 ***
Succinyl-CoA	C00091	NT	C13-05	25	17128.29141	2425.628231	13249.32285	70.28802	13.1918	0.1877	57.614	83.9428	69.3073	70.288	0.25152
Succinyl-CoA	C00091	I3sg2	C13-05	25	3997.308476	8629.093293	8913.902111	59.52613	4.4373	0.0745	64.1193	59.1959	55.2632	59.5261	0.25152
Succinyl-CoA	C00091	NT	C13-06	25	5372.424205	65.90290746	2697.025721	11.48664	8.2151	0.7152	18.0711	2.28068	14.1082	11.4866	0.23155
Succinyl-CoA	C00091	I3sg2	C13-06	25	0	703.5553261	1214.018016	4.11764	3.813	0.926	0	4.82642	7.5265	4.11764	0.23155
Succinyl-CoA	C00091	NT	C13-07	25	3545.130005	0	997.0466144	5.713404	5.9779	1.0463	11.9247	0	5.21556	5.7134	0.44456
Succinyl-CoA	C00091	I3sg2	C13-07	25	279.9306369	472.4358359	0	2.577063	2.3176	0.8993	4.49026	3.24093	0	2.57706	0.44456
UDP	C00015	NT	C12 PARENT	9	389420.254	123100.1436	347294.6949	5.824984	0.3776	0.0648	5.87419	5.42522	6.17555	5.82498	8.11E-06 ***
UDP	C00015	I3sg2	C12 PARENT	9	1464429.654	2593732.489	2492555.409	39.72346	1.97	0.0496	37.4533	40.983	40.7341	39.7235	8.11E-06 ***
UDP	C00015	NT	C13-01	9	646.4970974	0	11015.84304	0.068545	0.1104	1.6104	0.00975	0	0.19588	0.06854	0.34268
UDP	C00015	I3sg2	C13-01	9	0	0	0	0	0	NA	0	0	0	0	0.34268
UDP	C00015	NT	C13-02	9	10982.51509	0	23273.86814	0.193173	0.2083	1.0783	0.16567	0	0.41385	0.19317	0.18348
UDP	C00015	I3sg2	C13-02	9	0	0	0	0	0	NA	0	0	0	0	0.18348
UDP	C00015	NT	C13-03	9	51907.36787	8516.483797	21616.12595	0.514235	0.2328	0.4527	0.78299	0.37533	0.38437	0.51423	0.58841
UDP	C00015	I3sg2	C13-03	9	11101.69646	9873.433133	44048.41109	0.386597	0.2956	0.7646	0.28393	0.15601	0.71985	0.3866	0.58841
UDP	C00015	NT	C13-04	9	63404.84758	36224.56336	118983.8489	1.556218	0.5807	0.3732	0.95643	1.59647	2.11575	1.55622	0.08214
UDP	C00015	I3sg2	C13-04	9	2198.726075	68065.40472	26424.45766	0.521185	0.5155	0.989	0.05623	1.07549	0.43184	0.52119	0.08214
UDP	C00015	NT	C13-05	9	3791799.358	1357695.841	3180586.112	57.86324	1.738	0.03	57.1972	59.8358	56.5567	57.8632	0.00051 ***
UDP	C00015	I3sg2	C13-05	9	1696480.704	2463506.511	2496269.356	41.03606	2.2411	0.0546	43.3881	38.9253	40.7948	41.0361	0.00051 ***
UDP	C00015	NT	C13-06	9	603470.6813	183771.5756	587137.92556	9.214176	1.1746	0.1275	9.10302	8.0991	10.4404	9.21418	0.00398 **
UDP	C00015	I3sg2	C13-06	9	208883.4525	320556.6945	296582.1903	5.084715	0.2483	0.0488	5.34226	5.06505	4.84684	5.08472	0.00398 **
UDP	C00015	NT	C13-07	9	1114111.969	311346.0764	838913.3304	15.14824	1.555	0.1027	16.8058	13.7215	14.9174	15.1482	0.00242 **
UDP	C00015	I3sg2	C13-07	9	340874.025	558303.7531	503671.062	8.724556	0.4967	0.0569	8.71797	9.22456	8.23114	8.72456	0.00242 **
UDP	C00015	NT	C13-08	9	603601.5689	248381.3035	494886.9998	9.617188	1.1613	0.1208	9.105	10.9466	8.80001	9.61719	0.00177 **
UDP	C00015	I3sg2	C13-08	9	186049.4533	289261.8087	259537.8135	4.523428	0.2616	0.0578	4.75828	4.57056	4.24145	4.52343	0.00177 **
UDP-GlcNac	C00043	NT	C12 PARENT	17	485555.1709	454148.147	563643.345	2.237314	0.3861	0.1726	2.08049	1.95426	2.67719	2.23731	4.68E-05 ***
UDP-GlcNac	C00043	I3sg2	C12 PARENT	17	1104831.857	1121655.172	1131998.421	8.76409	0.4594	0.0524	9.28987	8.44061	8.56179	8.76409	4.68E-05 ***
UDP-GlcNac	C00043	NT	C13-01	17	0	0	0	0	0	NA	0	0	0	0	NA
UDP-GlcNac	C00043	I3sg2	C13-01	17	0	0	0	0	0	NA	0	0	0	0	NA
UDP-GlcNac	C00043	NT	C13-02	17	42417.21968	66664.94688	58242.73432	0.248419	0.058	0.2333	0.18175	0.28687	0.27664	0.24842	0.00529 **
UDP-GlcNac	C00043	I3sg2	C13-02	17	148842.3967	119595.1102	109425.6345	0.993043	0.2268	0.2283	1.25153	0.89997	0.82763	0.99304	0.00529 **
UDP-GlcNac	C00043	NT	C13-04	17	101076.7857	46946.10529	33890.50389	0.26536	0.1467	0.5528	0.43309	0.20202	0.16097	0.26536	0.67093
UDP-GlcNac	C00043	I3sg2	C13-04	17	62785.02915	0	0	0.175974	0.3048	1.7321	0.52792	0	0	0.17597	0.67093
UDP-GlcNac	C00043	NT	C13-05	17	2251487.246	2456076.207	1994467.825	9.896418	0.5888	0.0595	9.64711	10.5688	9.4733	9.89642	0.00235 **
UDP-GlcNac	C00043	I3sg2	C13-05	17	755551.9129	851575.9596	969696.8506	6.698481	0.5513	0.0823	6.35299	6.40823	7.33423	6.69848	0.00235 **
UDP-GlcNac	C00043	NT	C13-06	17	928262.3478	945296.5074	1026430.746	4.306822	0.4944	0.1148	3.97739	4.06774	4.87533	4.30682	0.00035 ***
UDP-GlcNac	C00043	I3sg2	C13-06	17	1998165.949	2688456.853	2199971.436	17.89057	2.0285	0.1134	16.8014	20.231	16.6393	17.8906	0.00035 ***
UDP-GlcNac	C00043	NT	C13-07	17	922403.2113	9191871.6458	722534.8907	3.884113	0.4223	0.1087	3.95229	4.26816	3.43189	3.88411	0.12583
UDP-GlcNac	C00043	I3sg2	C13-07	17	269954.1737	230061.3818	502220.6696	2.599879	1.0724	0.4125	2.26988	1.73124	3.79851	2.59988	0.12583
UDP-GlcNac	C00043	NT	C13-08	17	1077562.134	1068718.904	950924.7636	4.577549	0.535	0.0117	4.61711	4.59885	4.51669	4.57755	4.86E-06 ***
UDP-GlcNac	C00043	I3sg2	C13-08	17	1954525.123	2136946.621	2286454.698	16.6029	0.6236	0.0376	16.4344	16.0808	17.2934	16.6029	4.86E-06 ***
UDP-GlcNac	C00043	NT	C13-09	17	253296.8874	290605.6502	239063.2639	1.157112	0.0847	0.0732	1.08532	1.25052	1.1355	1.15711	0.10658
UDP-GlcNac	C00043	I3sg2	C13-09	17	36536.09985	84175.50108	143876.2751	0.67628	0.3923	0.58	0.30721	0.63343	1.0882	0.67628	0.10658
UDP-GlcNac	C00043	NT	C13-10	17	383896.1753	437731.1176	394536.3251	1.80083	0.1351	0.075	1.64491	1.88362	1.87396	1.80083	0.0067 **
UDP-GlcNac	C00043	I3sg2	C13-10	17	106980.995	90747.10888	19215.06923	0.575919	0.3883	0.6743	0.89954	0.68288	0.14533	0.57592	0.0067 **
UDP-GlcNac	C00043	NT	C13-11	17	4706521.595	4990949.517	4546592.485	21.07949	0.793	0.0376	20.1664	21.4768	21.5953	21.0795	0.00359 **
UDP-GlcNac	C00043	I3sg2	C13-11	17	2037395.823	2368894.083	2402080.477	17.70849	0.5283	0.0298	17.1312	17.8263	18.168	17.7085	0.00359 **
UDP-GlcNac	C00043	NT	C13-12	17	1228419.029	814766.534	912690.2735	4.368212	0.8792	0.2013	5.2635	3.50606	4.33508	4.36821	0.04536 *
UDP-GlcNac	C00043	I3sg2	C13-12	17	373898.4772	369873.3797	340391.8737	2.839322	0.288	0.1016	3.14389	2.78335	2.57453	2.83932	0.04536 *
UDP-GlcNac	C00043	NT	C13-13	17	6284950.038	6375121.793	5231027.786	26.40297	1.3714	0.0519	26.9296	27.433	24.8463	26.403	0.00029 ***
UDP-GlcNac	C00043	I3sg2	C13-13	17	1806706.73	2129070.338	1876370.978	15.13495	0.9162	0.0605	15.1915	16.0215	14.1918	15.135	0.00029 ***
UDP-GlcNac	C00043	NT	C13-14	17	1765901.981	1556230.944	1771334.966	7.558878	0.8584	0.1136	7.56649	6.96668	8.41346	7.55888	0.00648 **
UDP-GlcNac	C00043	I3sg2	C13-14	17	462580.2985	403976.6588									

UTP	C00075	NT	C13-05	9	6852619.649	2989903.58	4550828.829	58.08447	2.2422	0.0386	56.7477	56.8326	60.6731	58.0845	0.00047	***
UTP	C00075	I3sg2	C13-05	9	1677815.88	2710819.829	2359285.9	39.45904	2.1216	0.0538	40.7539	40.6126	37.0106	39.459	0.00047	***
UTP	C00075	NT	C13-06	9	1177755.966	544624.6482	724069.1742	9.91968	0.378	0.0381	9.7532	10.3523	9.65352	9.91968	0.00013	***
UTP	C00075	I3sg2	C13-06	9	225414.8834	397993.9155	385774.2355	5.829877	0.3103	0.0532	5.4753	5.96261	6.05172	5.82988	0.00013	***
UTP	C00075	NT	C13-07	9	1955449.048	808024.1969	1169166.815	15.71339	0.4311	0.0274	16.1934	15.3591	15.5877	15.7134	1.57E-05	***
UTP	C00075	I3sg2	C13-07	9	364979.767	570818.5829	534107.1696	8.598592	0.2467	0.0287	8.86531	8.55181	8.37865	8.59859	1.57E-05	***
UTP	C00075	NT	C13-08	9	1188617.809	460994.989	532050.1869	8.566428	1.3853	0.1617	9.84315	8.76267	7.09346	8.56643	0.00858	**
UTP	C00075	I3sg2	C13-08	9	198576.8019	290521.5567	304545.2068	4.651122	0.2596	0.0558	4.82341	4.35249	4.77747	4.65112	0.00858	**

Abundance

Name	KEGG.ID	Condition	Av	Std	CV	Exp001	Exp002	Exp003	ANOVA	Sig	Av2	denom	Norm_Av	Norm_Std
ADP	C00008	NT2	29687814.67	2747385.312	0.09254	31571368	30956761	26535315	0.00567	**	29687814.67	17474110	1.69896	0.15723
ADP	C00008	I3sg5	17474110	2787412.287	0.15952	17741290	20118312	14562728	0.00567	**	17474110	17474110	1	0.15952
Ala	C00041	NT2	20530081.67	3352270.196	0.16329	22902725	21992465	16695055	0.02415	*	20530081.67	12259519.33	1.6746237	0.27344
Ala	C00041	I3sg5	12259519.33	2279303.992	0.18592	10058225	14609548	12110785	0.02415	*	12259519.33	12259519.33	1	0.18592
AMP	C00020	NT2	22652352.33	2011770.744	0.08881	23928430	23695367	20333260	0.03864	*	22652352.33	13814123.67	1.6397966	0.14563
AMP	C00020	I3sg5	13814123.67	4627504.037	0.33498	11210192	19156937	11075242	0.03864	*	13814123.67	13814123.67	1	0.33498
Asp	C00049	NT2	47838155.67	5689769.478	0.11894	52393660	49660283	41460524	0.00624	**	47838155.67	27266563	1.7544623	0.20867
Asp	C00049	I3sg5	27266563	3670691.569	0.13462	23802892	31114105	26882692	0.00624	**	27266563	27266563	1	0.13462
ATP	C00002	NT2	60887045	6077458.213	0.09982	67466606	55483611	59710918	0.00446	**	60887045	32744685.33	1.8594482	0.1856
ATP	C00002	I3sg5	32744685.33	5854785.413	0.1788	35604530	36619900	26009626	0.00446	**	32744685.33	32744685.33	1	0.1788
Carnitine	C00318	NT2	4201218.333	443087.1715	0.10547	4512842	4396824	3693989	0.02801	*	4201218.333	2472379.667	1.699261	0.17921
Carnitine	C00318	I3sg5	2472379.667	769774.7345	0.31135	1795014	3309495	2312630	0.02801	*	2472379.667	2472379.667	1	0.31135
CDP	C00112	NT2	2391516.333	155556.8143	0.06505	2570124	2285708	2318717	0.00078	***	2391516.333	1405581.667	1.7014425	0.11067
CDP	C00112	I3sg5	1405581.667	101731.1533	0.07238	1429989	1492889	1293867	0.00078	***	1405581.667	1405581.667	1	0.07238
Cit	C00158	NT2	111904613.3	11694657.29	0.10451	125395932	104655715	105662193	0.01512	*	111904613.3	77565258	1.4427157	0.15077
Cit	C00158	I3sg5	77565258	8711735.455	0.11231	77049712	86523318	69122744	0.01512	*	77565258	77565258	1	0.11231
CoA	C00010	NT2	297851.3333	34540.56057	0.11597	323707	311223	258624	0.01409	*	297851.3333	176716	1.6854803	0.19546
CoA	C00010	I3sg5	176716	36674.50148	0.20753	162794	218313	149041	0.01409	*	176716	176716	1	0.20753
CTP	C00063	NT2	2558552.667	192417.2111	0.07521	2780586	2454267	2440445	0.01719	*	2558552.667	1589672.333	1.6094843	0.12104
CTP	C00063	I3sg5	1589672.333	381919.4769	0.24025	1791551	1828286	149180	0.01719	*	1589672.333	1589672.333	1	0.24025
Cystathionine	C02291	NT2	1020551	221656.1002	0.21719	1218156	1062623	780874	0.0495	*	1020551	662197.6667	1.5411577	0.33473
Cystathionine	C02291	I3sg5	662197.6667	22195.64111	0.03352	636786	672017	677790	0.0495	*	662197.6667	662197.6667	1	0.03352
F16BP	C00354	NT2	1171676.333	236517.525	0.20186	1396353	1193803	924873	0.01606	*	1171676.333	579557	2.0216758	0.4081
F16BP	C00354	I3sg5	579557	98143.33663	0.16934	552969	688255	497447	0.01606	*	579557	579557	1	0.16934
GABA	C00334	NT2	4237106	382806.3826	0.09035	4583614	382616	4301528	0.00971	**	4237106	3001807	1.4115185	0.12753
GABA	C00334	I3sg5	3001807	256515.5015	0.08545	3023017	3247059	2735345	0.00971	**	3001807	3001807	1	0.08545
GDP	C00035	NT2	3240595.333	519604.7114	0.16034	3795023	3161993	2764770	0.00938	**	3240595.333	1654241.333	1.9589617	0.3141
GDP	C00035	I3sg5	1654241.333	270867.1706	0.16374	1669527	1917142	1376055	0.00938	**	1654241.333	1654241.333	1	0.16374
GlcNAc-6P	C00357	NT2	472874.6667	75410.93378	0.15947	548068	473308	397248	0.01118	*	472874.6667	264473	1.7879884	0.28514
GlcNAc-6P	C00357	I3sg5	264473	29507.44359	0.11157	297615	254750	241054	0.01118	*	264473	264473	1	0.11157
Gln	C00064	NT2	741289960.7	26325017.79	0.03551	71105114	753723183	759095585	0.02614	*	741289960.7	525835826.3	1.4097365	0.05006
Gln	C00064	I3sg5	525835826.3	105035551.7	0.19975	509626354	638033823	429847302	0.02614	*	525835826.3	525835826.3	1	0.19975
Gly	C00037	NT2	14088756.33	875840.6699	0.06217	15037086	13918894	13310289	0.00849	**	14088756.33	9263137.667	1.5209486	0.09455
Gly	C00037	I3sg5	9263137.667	1494718.604	0.16136	8226445	10976530	8586438	0.00849	**	9263137.667	9263137.667	1	0.16136
GMP	C00144	NT2	1552161.333	29315.47333	0.01889	1583046	1524719	1548719	0.01161	*	1552161.333	852451.6667	1.8208203	0.03439
GMP	C00144	I3sg5	852451.6667	273329.8772	0.32064	671871	1166912	718572	0.01161	*	852451.6667	852451.6667	1	0.32064
GSH	C00051	NT2	99566167.33	10036631.49	0.1008	108177556	101977389	88543557	0.00925	**	99566167.33	62824450.33	1.5848315	0.15976
GSH	C00051	I3sg5	62824450.33	9054845.555	0.14413	63796470	71354072	53322809	0.00925	**	62824450.33	62824450.33	1	0.14413
GSSG	C00127	NT2	9952964.667	929198.7724	0.09336	8915971	10709985	10232938	0.00421	**	9952964.667	6340444.667	1.5697581	0.14655
GSSG	C00127	I3sg5	6340444.667	522926.7378	0.08247	6411607	6824146	5785581	0.00421	**	6340444.667	6340444.667	1	0.08247
GTP	C00044	NT2	34529720	4765738.285	0.13802	37109900	29030237	37449833	0.0207	*	34529720	20568904	1.6787341	0.2317
GTP	C00044	I3sg5	20568904	4452187.554	0.21645	23160921	23117770	15428021	0.0207	*	20568904	20568904	1	0.21645
His	C00135	NT2	37494460.67	4703395.137	0.12544	40099648	32064922	40318812	0.0373	*	37494460.67	26739034	1.4022369	0.1759
His	C00135	I3sg5	26739034	3834942.05	0.14342	26911274	30484954	22820874	0.0373	*	26739034	26739034	1	0.14342
Lys	C00047	NT2	3195490.667	282205.8335	0.08831	2909693	3202817	3473962	0.01271	*	3195490.667	2243890.333	1.424085	0.12577
Lys	C00047	I3sg5	2243890.333	260239.9959	0.11598	2437165	2364523	1947983	0.01271	*	2243890.333	2243890.333	1	0.11598
Mal	C00149	NT2	66252472.67	5661976.686	0.08546	71564175	66897734	60295509	0.00575	**	66252472.67	43583657.67	1.5201219	0.12991
Mal	C00149	I3sg5	43583657.67	4595969.134	0.10545	45185891	47164044	38401038	0.00575	**	43583657.67	43583657.67	1	0.10545
NAM	C00153	NT2	147956365.3	16967788.32	0.11468	155800704	159582688	128485704	0.04767	*	147956365.3	112385117.3	1.3165121	0.15098
NAM	C00153	I3sg5	112385117.3	13721903.75	0.1221	97705256	114561048	124889048	0.04767	*	112385117.3	112385117.3	1	0.1221
Ornithine	C00077	NT2	246775	11052.75653	0.04479	259194	238018	243113	0.00792	**	246775	180932	1.3639102	0.06109
Ornithine	C00077	I3sg5	180932	20361.34333	0.11254	203971	173473	165352	0.00792	**	180932	180932	1	0.11254
Orotidine	X00006	NT2	4002345.333	268779.8036	0.06716	4311679	3869521	3825836	0.00513	**	4002345.333	2496873.667	1.6029427	0.10765
Orotidine	X00006	I3sg5	2496873.667	384406.1457	0.15395	2467613	2895074	2127934	0.00513	**	2496873.667	2496873.667	1	0.15395
P-Choline	C00588	NT2	79721416	13161855.23	0.1651	93982720	77140032	68041496	0.0139	*	79721416	44373289.33	1.7966082	0.29662
P-Choline	C00588	I3sg5	44373289.33	6410635.471	0.14447	41541244	51712224	39866400	0.0139	*	44373289.33	44373289.33	1	0.14447
Palmitate	C00249	NT2	34748899.33	8587824.169	0.24714	33886178	26624998	43735522	0.01769	*	34748899.33	11021330.67	3.1528769	0.7792
Palmitate	C00249	I3sg5	11021330.67	6151909.142	0.55818	10670246	17341264	5052482	0.01769	*	11021330.67	11021330.67	1	0.55818
PPI	C00013	NT2	261988.3333	33859.29033	0.12924	236943	300511	248511	0.01131	*	261988.3333	115839.3333	2.2616526	0.2923
PPI	C00013	I3sg5	115839.3333	45817.58729	0.39553	128692	153858	64968	0.01131	*	115839.3333	115839.3333	1	0.39553
Pro	C00148	NT2	299319356.7	58560030.67	0.19564	358925707	297167392	241864971	0.01936	*	299319356.7	164119571.3	1.8237883	0.35681
Pro	C00148	I3sg5	164119571.3	19996639.91	0.12184	144965264	184863640	162529810	0.01936	*	164119571.3	164119571.3	1	0.12184
PRPP	C00119	NT2	652263.3333	103628.5494	0.15888	708821	532662	715307	0.0					

Isotopologue Distribution																
Name	KEGG.ID	Condition	Iso	Nr.C	Exp001	Exp002	Exp003	Norm_Av	Norm_Std	CV	MID001	MID002	MID003	Av	ANOVA	Sig
2-HG	C02830	NT2	C12 PARENT	5	2343834.88	2154520.372	2348404.775	85.648782	1.7802	0.0208	83.6085	86.452	86.8859	85.6488	0.00651	**
2-HG	C02630	I3sg5	C12 PARENT	5	2131700.76	2396061.267	1951072.9	91.219231	0.522	0.0057	91.2428	90.6859	91.7291	91.2192	0.00651	**
2-HG	C02630	NT2	C13-02	5	246545.8235	210178.7515	228738.678	8.5637122	0.2006	0.0234	8.7947	8.4336	8.46284	8.56371	0.00626	**
2-HG	C02630	I3sg5	C13-02	5	145910.104	185790.0729	118901.8488	6.2890852	0.7218	0.1148	6.24536	7.03176	5.59013	6.28909	0.00626	**
2-HG	C02630	NT2	C13-03	5	30643.05482	60620.1114	61010.97511	1.9275989	0.728	0.3777	1.09309	2.43243	2.25277	1.9276	0.03301	*
2-HG	C02630	I3sg5	C13-03	5	0	5675.687175	18100.30268	0.3552642	0.4425	1.2456	0	0.21481	0.85098	0.35526	0.03301	*
2-HG	C02630	NT2	C13-04	5	98808.67433	66840.12783	13219.45528	2.2319256	1.567	0.7021	3.52467	2.68202	0.48909	2.23193	0.92286	
2-HG	C02630	I3sg5	C13-04	5	58684.48285	54628.50871	38920.31759	2.1364201	0.3462	0.162	2.51186	2.06757	1.82983	2.13642	0.92286	
2-HG	C02630	NT2	C13-05	5	83513.90385	0	51485.81653	1.6279812	1.5087	0.9267	2.97908	0	1.90486	1.62798	0.13499	
2-HG	C02630	I3sg5	C13-05	5	0	0	0	0	0	NA	0	0	0	0	0.13499	
3PG	C00197	NT2	C12 PARENT	3	52195.45967	115314.6225	161052.4924	6.5299052	2.8654	0.4388	3.4464	7.03257	9.11074	6.52991	0.65569	
3PG	C00197	I3sg5	C12 PARENT	3	141904.4427	89467.30189	93277.41158	7.768724	3.4197	0.4402	11.2746	4.44218	7.58937	7.76872	0.65569	
3PG	C00197	NT2	C13-03	3	1462296.792	1524406.818	1606668.477	93.470095	2.8654	0.0307	96.5536	92.9674	90.8893	93.4701	0.65569	
3PG	C00197	I3sg5	C13-03	3	1116713.846	1924570.905	1135776.669	92.231276	3.4197	0.0371	88.7254	95.5758	92.4106	92.2313	0.65569	
5-Oxoproline	C01879	NT2	C12 PARENT	5	15914934.95	14748059.43	12696871.18	92.456833	1.7122	0.0185	92.8362	90.5868	93.9475	92.4568	0.22821	
5-Oxoproline	C01879	I3sg5	C12 PARENT	5	10927359.66	14375548.32	10835106.52	93.986719	0.737	0.0078	94.5221	93.1461	94.292	93.9867	0.22821	
5-Oxoproline	C01879	NT2	C13-01	5	1963.284442	199562.2387	75758.99429	0.5992604	0.6081	0.1047	0.01145	1.22577	0.56056	0.59926	0.5125	
5-Oxoproline	C01879	I3sg5	C13-01	5	0	128636.817	0	0.2778333	0.4812	1.7321	0	0.8335	0	0.27783	0.5125	
5-Oxoproline	C01879	NT2	C13-02	5	778180.9319	841223.1433	588887.8272	4.6879044	0.4248	0.0906	4.53935	5.16703	4.35734	4.6879	0.05309	
5-Oxoproline	C01879	I3sg5	C13-02	5	405928.6941	189368.8492	481857.965	3.831068	0.343	0.0895	3.5113	3.78856	4.19335	3.83107	0.05309	
5-Oxoproline	C01879	NT2	C13-04	5	354829.9308	344918.6355	112244.3178	1.6729784	0.73	0.4363	2.06982	2.11859	0.83053	1.67298	0.5511	
5-Oxoproline	C01879	I3sg5	C13-04	5	134356.2896	256446.5932	152207.0489	1.3828008	0.2548	0.1842	1.16219	1.66164	1.32457	1.3828	0.5511	
5-Oxoproline	C01879	NT2	C13-05	5	93113.09291	146822.5298	41097.37218	0.5830235	0.3009	0.516	0.54315	0.90183	0.30409	0.58302	0.81755	
5-Oxoproline	C01879	I3sg5	C13-05	5	93000.49731	87999.33176	21843.14466	0.5215789	0.3101	0.5945	0.80446	0.57019	0.19009	0.52158	0.81755	
A	C00212	NT2	C12 PARENT	10	232912.7924	189368.8492	201244.6027	29.642607	3.8527	0.13	29.6257	25.9794	33.5037	29.6426	0.35127	
A	C00212	I3sg5	C12 PARENT	10	114440.5201	184611.2438	168734.2359	33.53696	5.1087	0.1523	39.4088	30.1114	31.0907	33.537	0.35127	
A	C00212	NT2	C13-04	10	16096.05285	23773.19731	0	1.7620246	1.6381	0.9297	2.04737	3.23871	0	1.76202	0.39618	
A	C00212	I3sg5	C13-04	10	0	3415.306344	9155.589706	0.7480179	0.8596	1.1491	0	0.55706	1.68699	0.74802	0.39618	
A	C00212	NT2	C13-05	10	485925.7493	480830.2896	374533.6731	63.222219	1.9959	0.0316	61.8082	65.5052	62.3532	63.2222	0.79598	
A	C00212	I3sg5	C13-05	10	175952.7941	405067.5534	350974.2282	63.77683	2.8462	0.0446	60.5912	66.0694	64.6699	63.7768	0.79598	
A	C00212	NT2	C13-06	10	51249.07693	40060.96922	24886.01998	5.3731495	1.1901	0.2215	6.51872	5.45765	4.14308	5.37315	0.04642	*
A	C00212	I3sg5	C13-06	10	0	20000.02236	13852.46547	1.9381922	1.7156	0.8852	0	3.26215	2.85243	1.93819	0.04642	*
Ac-carnitine	C02571	NT2	C12 PARENT	9	9198687.045	8603879.979	5904976.485	65.348949	1.3952	0.0214	65.8984	66.3858	63.7626	65.3489	0.02917	*
Ac-carnitine	C02571	I3sg5	C12 PARENT	9	3959574.588	7078004.506	4438011.666	60.64518	2.012	0.0332	59.8135	59.1824	62.9397	60.6452	0.02917	*
Ac-carnitine	C02571	NT2	C13-01	9	0	0	0	0	0	NA	0	0	0	0	NA	
Ac-carnitine	C02571	I3sg5	C13-01	9	0	0	0	0	0	NA	0	0	0	0	NA	
Ac-carnitine	C02571	NT2	C13-02	9	4760201.828	4356545.756	3355894.728	34.651051	1.3952	0.0403	34.1016	33.6142	36.2374	34.6511	0.02917	*
Ac-carnitine	C02571	I3sg5	C13-02	9	2660297.215	4881635.853	2613204.976	39.35482	2.012	0.0511	40.1865	40.8176	37.0603	39.3548	0.02917	*
Ac-carnitine	C02571	NT2	C13-03	9	0	0	0	0	0	NA	0	0	0	0	NA	
Ac-carnitine	C02571	I3sg5	C13-03	9	0	0	0	0	0	NA	0	0	0	0	NA	
Acetyl-CoA	C00024	NT2	C12 PARENT	23	6946.123343	7112.645581	17920.71294	11.925446	1.5227	0.1277	10.7879	11.3331	13.6553	11.9254	0.20886	
Acetyl-CoA	C00024	I3sg5	C12 PARENT	23	16697.64761	5849.868831	8432.881503	13.577532	1.1565	0.0852	14.7498	12.4375	13.5453	13.5775	0.20886	
Acetyl-CoA	C00024	NT2	C13-01	23	0	54.76352522	439.4611594	0.1407073	0.1737	1.2346	0	0.08726	0.33486	0.14071	0.23328	
Acetyl-CoA	C00024	I3sg5	C13-01	23	0	0	0	0	0	NA	0	0	0	0	0.23328	
Acetyl-CoA	C00024	NT2	C13-02	23	8629.146431	9883.661704	17800.59272	14.23798	1.3105	0.092	13.4018	15.7483	13.5638	14.238	0.97327	
Acetyl-CoA	C00024	I3sg5	C13-02	23	15753.16567	7662.370296	7695.463933	14.189128	1.9793	0.1395	13.9155	16.291	12.3608	14.1891	0.97327	
Acetyl-CoA	C00024	NT2	C13-03	23	0	0	263.7339446	0.0669872	0.116	1.7321	0	0.20096	0.06699	0.18617		
Acetyl-CoA	C00024	I3sg5	C13-03	23	1316.114503	0	425.1421716	0.615157	0.5842	0.9497	1.16259	0.68288	0.61516	0.18617		
Acetyl-CoA	C00024	NT2	C13-04	23	0	958.1863354	2063.7996	1.0331102	0.895	0.8663	0	1.52674	1.57259	1.03311	0.48127	
Acetyl-CoA	C00024	I3sg5	C13-04	23	134.721198	509.1916119	330.672493	0.575841	0.4835	0.8371	0.11901	1.0826	0.53115	0.57588	0.48127	
Acetyl-CoA	C00024	NT2	C13-05	23	19253.05449	17703.0764	44446.76354	30.659007	2.9052	0.0948	29.9017	28.2075	33.8678	30.659	0.40345	
Acetyl-CoA	C00024	I3sg5	C13-05	23	36464.90214	15392.00134	19795.99474	32.244518	0.4648	0.0144	32.2112	32.7251	31.7973	32.2445	0.40345	
Acetyl-CoA	C00024	NT2	C13-06	23	3340.616294	3353.675707	6023.554301	5.0405918	0.398	0.079	5.18827	5.34364	4.58987	5.04059	0.16452	
Acetyl-CoA	C00024	I3sg5	C13-06	23	3008.036417	2423.912361	1076.922156	3.7155657	1.2907	0.3474	2.65714	5.1535	3.36606	3.71557	0.16452	
Acetyl-CoA	C00024	NT2	C13-07	23	24410.22699	23305.03177	41630.65451	35.588901	3.3713	0.0947	37.9112	37.1335	31.722	35.5889	0.55862	
Acetyl-CoA	C00024	I3sg5	C13-07	23	39093.528	14957.51397	22427.39442	34.119488	2.1415	0.0628	34.5332	31.8013	36.024	34.1195	0.55862	
Acetyl-CoA	C00024	NT2	C13-08	23	1808.700174	373.2560965	0	1.1346014	1.4803	1.3047	2.80907	0.59473	0	1.1346	0.86198	
Acetyl-CoA	C00024	I3sg5	C13-08	23	737.6249013	239.443179	1072.323154	0.9610288	0.6632	0.6901	0.65158	0.50908	1.72242	0.96103	0.86198	
Acetyl-CoA	C00024	NT2	C13-09	23	0	15.84204293	646.6801574	0.1726679	0.2775	1.6071	0	0.02524	0.49276	0.17267	0.34181	
Acetyl-CoA	C00024	I3sg5	C13-09	23	0	0	0	0	0	NA	0	0	0	0	0.34181	
Aconitate	C00417	NT2	C12 PARENT	6	179971.3443	113908.5318	231782.0085	40.806264	9.065	0.222						

Ala	C00041	I3sg5	C13-02	3	0	134106.3193	126819.7039	0.64817	0.565	0.8717	0	0.90811	1.0364	0.64817	0.13668	
Ala	C00041	NT2	C13-03	3	20696604.4	20065972.48	15237215.85	90.081158	0.473	0.0053	89.5383	90.4025	90.3038	90.0815	0.5735	
Ala	C00041	I3sg5	C13-03	3	9279333.415	13364082.19	10986848.36	90.375921	0.6856	0.0076	90.9936	90.4958	89.6383	90.3759	0.5735	
AMP	C00020	NT2	C12 PARENT	10	4736954.325	4865386.693	4310876.32	20.389953	0.6757	0.0331	19.6958	20.4284	21.0456	20.39	0.01751 *	
AMP	C00020	I3sg5	C12 PARENT	10	2539661.105	4218472.381	2610611.297	22.65773	0.7462	0.0329	22.5812	21.9527	23.4392	22.6577	0.01751 *	
AMP	C00020	NT2	C13-01	10	0	0	0	0	0	0 NA	0	0	0	0	0 NA	
AMP	C00020	I3sg5	C13-01	10	0	0	0	0	0	0 NA	0	0	0	0	0 NA	
AMP	C00020	NT2	C13-02	10	159981.6853	197750.5256	154038.064	0.7491668	0.0826	0.1102	0.66519	0.8303	0.75201	0.74917	0.0756	
AMP	C00020	I3sg5	C13-02	10	108765.5164	157866.3024	117802.5273	0.9487646	0.1191	0.1256	0.96708	0.82153	1.05768	0.94876	0.0756	
AMP	C00020	NT2	C13-03	10	237781.0896	208624.2609	148033.0259	0.8622441	0.1335	0.1548	0.98867	0.87596	0.72269	0.86224	0.16402	
AMP	C00020	I3sg5	C13-03	10	126108.2727	196454.6098	103448.2176	1.0241427	0.0963	0.094	1.12128	1.02234	0.9288	1.02414	0.16402	
AMP	C00020	NT2	C13-04	10	382545.0338	389515.6395	258990.8723	1.4968152	0.2025	0.1353	1.59059	1.63547	1.26439	1.49682	0.87958	
AMP	C00020	I3sg5	C13-04	10	146606.1529	243277.5503	229224.6774	1.5425418	0.4469	0.2897	1.30354	1.266	2.05808	1.54254	0.87958	
AMP	C00020	NT2	C13-05	10	16688830.12	16534954.68	14427319.26	69.750087	0.5923	0.0085	69.3907	69.4258	70.4338	69.7501	0.50786	
AMP	C00020	I3sg5	C13-05	10	7833813.799	13497708.12	7482197.293	69.02459	1.6255	0.0235	69.6538	70.2414	67.1785	69.0246	0.50786	
AMP	C00020	NT2	C13-06	10	1375672.561	1216329.605	948727.6669	5.1528756	0.5456	0.1059	5.71993	5.10704	4.63166	5.15288	0.01873 *	
AMP	C00020	I3sg5	C13-06	10	382495.1196	705185.9068	456138.8922	3.220282	0.3502	0.0941	3.40093	3.66975	4.0954	3.72203	0.01873 *	
AMP	C00020	NT2	C13-07	10	426752.1533	337607.563	235545.2759	1.4472821	0.3133	0.2165	1.7744	1.41752	1.14993	1.44728	0.13858	
AMP	C00020	I3sg5	C13-07	10	109329.7629	197209.362	138358.1007	1.0802024	0.1429	0.1323	0.9721	1.02627	1.24224	1.0802	0.13858	
AMP	C00020	NT2	C13-08	10	42009.57479	66559.1073	0	0.1513786	0.1412	0.9326	0.17467	0.27946	0	0.15138	0.13685	
AMP	C00020	I3sg5	C13-08	10	0	0	0	0	0	0 NA	0	0	0	0	0.13685	
Arg-Succ	C03406	NT2	C12 PARENT	10	144235.188	93192.2119	102910.6968	86.074386	7.2799	0.0846	93.2036	78.6527	86.3668	86.0744	0.17904	
Arg-Succ	C03406	I3sg5	C12 PARENT	10	81337.45273	119740.3274	14705.31558	94.614803	5.4455	0.0576	89.1109	94.7335	100	94.6148	0.17904	
Arg-Succ	C03406	NT2	C13-02	10	0	0	0	0	8.103	1.055	0	16.1485	6.89394	7.68081	0.70466	
Arg-Succ	C03406	I3sg5	C13-02	10	9939.190955	6656.706727	0	5.3851967	5.4455	1.0112	10.8891	5.26651	0	5.3852	0.70466	
Arg-Succ	C03406	NT2	C13-03	10	10517.57777	6159.846269	8030.134947	6.2447998	0.9063	0.1451	6.79637	5.19881	6.73922	6.2448	0.00028 ***	
Arg-Succ	C03406	I3sg5	C13-03	10	0	0	0	0	0	0 NA	0	0	0	0	0.00028 ***	
Asn	C00152	NT2	C12 PARENT	4	2193066.117	2117512.489	1927887.164	77.95279	8.2876	0.1063	72.2819	74.1126	87.4639	77.9528	0.94238	
Asn	C00152	I3sg5	C12 PARENT	4	1527369.537	1877092.971	1252089.27	78.503293	9.2168	0.1174	88.73	75.9414	70.8385	78.5033	0.94238	
Asn	C00152	NT2	C13-01	4	128932.2728	4274.923981	0	1.4663783	2.4114	1.6445	4.24951	0.14962	0	1.46638	0.95745	
Asn	C00152	I3sg5	C13-01	4	12586.29683	34546.533	44605.09641	1.5580845	0.906	0.5842	0.73118	1.39765	2.52359	1.55808	0.95745	
Asn	C00152	NT2	C13-02	4	318033.7701	330590.6791	175296.5058	10.001864	1.8561	0.1856	10.4822	11.5706	7.95281	10.0019	0.76295	
Asn	C00152	I3sg5	C13-02	4	0	0	272252.7958	258221.5636	8.5412345	7.6122	0.8912	0	11.0145	14.6092	8.54123	0.76295
Asn	C00152	NT2	C13-03	4	371794.9796	363126.0835	101025.4844	9.8489158	4.5658	0.4636	12.2541	12.7094	4.5833	9.84892	0.65469	
Asn	C00152	I3sg5	C13-03	4	181411.1566	287873.4757	198056.093	11.130173	0.5576	0.0501	10.5388	11.6465	11.2053	11.1302	0.65469	
Asn	C00152	NT2	C13-04	4	22220.83765	41650.87783	0	0.7300523	0.7289	0.9984	0.73238	1.45777	0	0.73005	0.41585	
Asn	C00152	I3sg5	C13-04	4	0	0	14555.35689	0.2744956	0.4754	1.7321	0	0	0.82349	0.2745	0.41585	
Asp	C00049	NT2	C12 PARENT	4	33247027.67	32009841.61	27000262.92	63.962103	0.8359	0.0131	63.0765	64.0724	64.7373	63.9621	0.80636	
Asp	C00049	I3sg5	C12 PARENT	4	15042944.19	20009742.13	17467867.3	63.776595	0.8983	0.0141	62.8129	63.9263	64.5906	63.7766	0.80636	
Asp	C00049	NT2	C13-01	4	1714620.872	1348818.57	977062.1631	2.7651705	0.4587	0.1659	3.25299	2.69986	2.34266	2.76517	0.46247	
Asp	C00049	I3sg5	C13-01	4	491500.1796	938902.8705	621579.4786	2.4500882	0.4915	0.2006	2.05229	2.99957	2.29824	2.45009	0.46247	
Asp	C00049	NT2	C13-02	4	8367980.843	7724329.893	6547056.214	15.67826	0.2079	0.0133	15.8758	15.4614	15.6976	15.6783	0.62503	
Asp	C00049	I3sg5	C13-02	4	3820629.501	4771345.098	4179329	15.550144	0.3647	0.0235	15.9533	15.2433	15.4538	15.5501	0.62503	
Asp	C00049	NT2	C13-03	4	6599225.527	6368406.671	5443877.181	12.773319	0.2672	0.0209	12.5201	12.7473	13.0525	12.7733	0.31607	
Asp	C00049	I3sg5	C13-03	4	3327092.07	4033694.619	3471339.557	13.205032	0.5959	0.0451	13.8925	12.8867	12.8359	13.2051	0.31607	
Asp	C00049	NT2	C13-04	4	2780173.652	2507436.975	1739144.137	4.8211479	0.5783	0.12	5.27457	5.01901	4.16987	4.82115	0.61528	
Asp	C00049	I3sg5	C13-04	4	1266648.859	1547582.982	1303867.121	5.0181405	0.2425	0.0483	5.28898	4.94415	4.82128	5.01814	0.61528	
ATP	C00002	NT2	C12 PARENT	10	12560540.38	10768324.18	11946829.47	19.285598	0.6955	0.0361	18.5626	19.3442	19.95	19.2856	0.11004	
ATP	C00002	I3sg5	C12 PARENT	10	7315920.476	7967076.399	5176762.463	20.676605	0.9493	0.0459	20.5191	21.6948	19.8159	20.6766	0.11004	
ATP	C00002	NT2	C13-01	10	0	0	0	0	0	0 NA	0	0	0	0	0 NA	
ATP	C00002	I3sg5	C13-01	10	0	0	0	0	0	0 NA	0	0	0	0	0 NA	
ATP	C00002	NT2	C13-02	10	592262.3517	377943.5297	645852.5026	0.8775703	0.1998	0.2277	0.87527	0.67894	1.0785	0.87757	0.2096	
ATP	C00002	I3sg5	C13-02	10	270279.0901	260006.9336	161534.6732	0.6948008	0.0708	0.1019	0.75806	0.70801	0.61833	0.6948	0.2096	
ATP	C00002	NT2	C13-03	10	618964.7947	513707.9112	616068.3096	0.9554414	0.0636	0.0666	0.91474	0.92283	1.02876	0.95544	0.17209	
ATP	C00002	I3sg5	C13-03	10	491007.1108	375356.9854	276442.664	1.1524793	0.1954	0.1695	1.37713	1.02212	1.05818	1.15248	0.17209	
ATP	C00002	NT2	C13-04	10	1163767.906	852082.4252	742612.8141	1.4968774	0.2417	0.1615	1.71987	1.53068	1.24008	1.49688	0.87127	
ATP	C00002	I3sg5	C13-04	10	439698.1359	581114.8243	466445.0651	1.5337081	0.2793	0.1821	2.33233	1.58241	1.78549	1.53371	0.87127	
ATP	C00002	NT2	C13-05	10	46903559.45	38882429.38	41720365.5	69.610991	0.2706	0.0039	69.3164	69.8484	69.6681	69.611	0.71154	
ATP	C00002	I3sg5	C13-05	10	25250002.82	2519935.06	18066168.17	69.82204	0.8798	0.0126	70.819	69.4924	69.1547	69.822	0.71154	
ATP	C00002	NT2	C13-06	10	4548159.611	3326235.355	3304659.03	6.0717142	0.6073	0.1	6.7215	5.97525	5.51839	6.07171	0.10425	
ATP	C00002	I3sg5	C13-06	10	1423429.7	1393506.095	1520056.771	4.5351591	1.1158	0.246	3.99231	3.7946	5.81856	4.53516	0.10425	
ATP	C00002	NT2	C13-07	10	1192634.479	763333.9525	819942.2845	1.5009987	0.2265	0.1509	1.76253	1.37125	1.36921	1.501	0.99356	
ATP	C00002	I3sg5	C13-07	10	454347.2918	572885.9658	434751.2378	1.4994946	0.2018	0.1346	1.27431	1.56	1.66417	1.49949	0.99356	
ATP	C00002	NT2	C13-08	10	85995.64044	182792.2825	88012.28905	0.200809	0.1109	0.5523	0.12709	0.32837	0.14697	0.20081	0.18829	
ATP	C00002	I3sg5	C13-08	10	9568.853656	53489.41287	22113.245	0.0857131	0.0594	0.6932	0.02684	0.14565	0.08465	0.08571	0.18829	
Carbamoyl-Asp	C00438	NT2	C12 PARENT	5	6529014.76	5545414.936	7035159.17	72.692384	0.9553	0.0131	73.2872	73.1995	71.5904	72.6924	0.11346	
Carbamoyl-Asp	C00438	I3sg5	C12 PARENT	5	8361222.126	8127675.226	5694983.676	71.317581	0.6903	0.0097	70.5342	71.5817	71.8368	71.3176	0.11346	
Carbamoyl-Asp	C00438	NT2	C13-01	5	15206.37913	0	0	0.0568965	0.0985	1.7321	0.17069	0	0	0.0569	0.69167	
Carbamoyl-Asp	C00438	I3sg5	C13-01	5	3509.038569	0	21711.33828	0.1011566	0.1503	1.4858	0.0296	0	0.27387	0.10116</		

CDP-EIA	C00570	NT2	C13-06	11	45205.28205	30806.57452	18677.56516	3.0972931	1.354	0.4372	4.49535	3.00438	1.79215	3.09729	0.15951
CDP-EIA	C00570	I3sg5	C13-06	11	12655.85062	31135.45273	3121.054663	1.4229751	0.9956	0.6996	1.32548	2.46371	0.47973	1.42298	0.15951
CDP-EIA	C00570	NT2	C13-07	11	41390.86054	79322.63367	112007.581	7.533073	3.3203	0.4408	4.11601	7.73586	10.7473	7.53307	0.72376
CDP-EIA	C00570	I3sg5	C13-07	11	76595.58503	72812.18572	42332.31827	6.7634912	1.1519	0.1703	8.02207	5.76153	6.50687	6.76349	0.72376
CDP-EIA	C00570	NT2	C13-08	11	30018.07706	18396.15119	43288.75059	2.9775986	1.1798	0.3962	2.98509	1.79407	4.15364	2.9776	0.24467
CDP-EIA	C00570	I3sg5	C13-08	11	23411.9628	26173.02127	8453.63088	1.9408131	0.5872	0.3026	2.452	2.07104	1.2994	1.94081	0.24467
Cit	C00158	NT2	C12 PARENT	6	40435219.2	32855413.39	35352424.84	32.304049	1.0362	0.0321	32.1825	31.334	33.3957	32.304	0.03479 *
Cit	C00158	I3sg5	C12 PARENT	6	27197054.13	30701755.79	23379102.11	34.804696	0.9092	0.0261	35.2336	35.4202	33.7603	34.8047	0.03479 *
Cit	C00158	NT2	C13-01	6	1760910.248	1744938.334	1857030.902	1.6066311	0.1833	0.1141	1.40151	1.66414	1.75425	1.60663	0.8325
Cit	C00158	I3sg5	C13-01	6	1214118.97	1409166.877	1071974.618	1.5821969	0.0397	0.0251	1.57288	1.62574	1.54797	1.5822	0.8325
Cit	C00158	NT2	C13-02	6	44076753.79	37571323.52	36830109.91	35.234627	0.5368	0.0152	35.0808	35.8315	34.7916	35.2346	0.07053
Cit	C00158	I3sg5	C13-02	6	25632146.3	29253855.74	24057508.39	33.898662	0.7776	0.0229	33.2062	33.7498	34.74	33.8987	0.07053
Cit	C00158	NT2	C13-03	6	7647603.701	6658655.482	6431144.19	6.1707474	0.1556	0.0252	6.08674	6.35031	6.07518	6.17075	0.3132
Cit	C00158	I3sg5	C13-03	6	4957340.619	5413857.288	4309693.535	6.2971506	0.1089	0.0173	6.42219	6.24589	6.22337	6.29715	0.3132
Cit	C00158	NT2	C13-04	6	15891207.41	13232599.41	12767945.02	12.442977	0.3309	0.0266	12.6478	12.6198	12.0612	12.443	0.0334 *
Cit	C00158	I3sg5	C13-04	6	9092936.133	9870962.572	8214732.659	11.676737	0.2534	0.0217	11.7798	11.388	11.8624	11.6767	0.0334 *
Cit	C00158	NT2	C13-05	6	11529232.97	9504529.134	9425684.469	9.0481745	0.1368	0.0151	9.17614	9.0644	8.90398	9.04817	0.49238
Cit	C00158	I3sg5	C13-05	6	7051019.874	7836766.607	6348175.286	9.1142401	0.0653	0.0072	9.13454	9.04117	9.16701	9.11424	0.49238
Cit	C00158	NT2	C13-06	6	4302678.722	3288066.433	3194900.041	3.1927939	0.2091	0.0655	3.42451	3.13581	3.01806	3.19279	0.01237 *
Cit	C00158	I3sg5	C13-06	6	2046161.717	2192306.781	1869017.603	2.626318	0.0875	0.0333	2.65079	2.52923	2.69893	2.62632	0.01237 *
CMP	C00055	NT2	C12 PARENT	9	137666.5794	141783.7434	228789.1758	60.277907	17.1123	0.2839	65.9401	41.0522	73.8414	60.2779	0.74184
CMP	C00055	I3sg5	C12 PARENT	9	191014.6187	138034.3999	48527.82669	53.971137	25.7733	0.4775	77.7718	57.5437	26.5979	53.9711	0.74184
CMP	C00055	NT2	C13-05	9	71108.56315	203590.8459	81049.29429	39.722093	17.1123	0.4308	34.0599	58.9478	26.1586	39.7221	0.74184
CMP	C00055	I3sg5	C13-05	9	54594.49	101842.9515	133922.2032	46.028863	25.7733	0.5599	22.2282	42.4563	73.4021	46.0289	0.74184
CoA	C00010	NT2	C12 PARENT	21	103303.0562	97997.87305	83816.9873	31.723587	0.3952	0.0125	31.6396	31.3771	32.1541	31.7236	0.00318 **
CoA	C00010	I3sg5	C12 PARENT	21	60147.09046	77772.6126	52827.74306	35.392861	0.9221	0.0261	36.4576	34.85	34.871	35.3929	0.00318 **
CoA	C00010	NT2	C13-01	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	I3sg5	C13-01	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	NT2	C13-02	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	I3sg5	C13-02	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	NT2	C13-03	21	3205.07413	3886.622776	2184.797583	1.0214032	0.206	0.2017	0.98165	1.24442	0.83814	1.0214	0.03548 *
CoA	C00010	I3sg5	C13-03	21	1080.644241	992.8734239	1006.124419	0.5880205	0.124	0.2109	0.65502	0.44491	0.66413	0.58802	0.03548 *
CoA	C00010	NT2	C13-04	21	6017.665869	4668.940252	4222.447894	1.6526067	0.1764	0.1067	1.84309	1.49491	1.61983	1.65261	0.32929
CoA	C00010	I3sg5	C13-04	21	3829.76521	3177.260597	3354.559244	1.9864724	0.4903	0.2688	2.32137	1.42373	2.21431	1.98647	0.32929
CoA	C00010	NT2	C13-05	21	196290.3688	195234.2223	164013.71111	61.849794	1.5122	0.0244	60.1197	62.5104	62.9193	61.8498	0.22576
CoA	C00010	I3sg5	C13-05	21	97176.19147	137637.166	90668.01178	60.142244	1.4095	0.0234	58.9024	61.6753	59.849	60.1422	0.22576
CoA	C00010	NT2	C13-06	21	17573.49576	8723.113671	5027.970309	3.3680732	1.7972	0.5336	5.3824	2.79298	1.92884	3.36807	0.15061
CoA	C00010	I3sg5	C13-06	21	2288.742464	3001.155444	2719.667451	1.5091144	0.2487	0.1648	1.3873	1.34482	1.79522	1.50911	0.15061
CoA	C00010	NT2	C13-07	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	I3sg5	C13-07	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	NT2	C13-08	21	109.6562377	1812.202904	1407.088221	0.3845365	0.3046	0.7921	0.03359	0.58023	0.53979	0.38454	0.98833
CoA	C00010	I3sg5	C13-08	21	455.9239134	582.9806906	918.4751468	0.3812879	0.195	0.5114	0.27635	0.26123	0.60628	0.38129	0.98833
CoA	C00010	NT2	C13-09	21	0	0	0	0	0	NA	0	0	0	0	NA
CoA	C00010	I3sg5	C13-09	21	0	0	0	0	0	NA	0	0	0	0	NA
Creatine	C00300	NT2	C12 PARENT	4	369744217	358686421.4	212381653.5	97.727609	0.3017	0.0031	97.4662	97.6589	98.0577	97.7276	0.13067
Creatine	C00300	I3sg5	C12 PARENT	4	222119613.4	241482179.1	210034931.1	98.115455	0.1854	0.0019	98.2235	98.2214	97.9014	98.1155	0.13067
Creatine	C00300	NT2	C13-01	4	0	0	0	0	0	NA	0	0	0	0	NA
Creatine	C00300	I3sg5	C13-01	4	0	0	0	0	0	NA	0	0	0	0	NA
Creatine	C00300	NT2	C13-02	4	9612270.265	8598366.617	4206738.922	2.2723906	0.3017	0.1328	2.53384	2.34106	1.94227	2.27239	0.13067
Creatine	C00300	I3sg5	C13-02	4	4017227.402	4372756.045	4502241.058	1.8845446	0.1854	0.2988	1.77646	1.77859	2.09858	1.88454	0.13067
Creatinine	C00791	NT2	C12 PARENT	4	912631.6023	840591.8736	578311.292	98.831438	1.0028	0.0101	99.7586	97.767	98.9687	98.8314	0.62773
Creatinine	C00791	I3sg5	C12 PARENT	4	266641.5869	700156.4136	402312.555	98.072246	2.2984	0.0234	95.5286	100	98.6881	98.0722	0.62773
Creatinine	C00791	NT2	C13-01	4	2208.810739	19198.70702	6028.221244	1.1885616	1.0028	0.8582	0.24144	2.23295	1.03129	1.18856	0.62773
Creatinine	C00791	I3sg5	C13-01	4	12480.6234	101535.2881	41487.99893	4.2296027	2.2984	1.1923	4.47138	0.13188	1.92775	4.2296	0.62773
CTP	C00063	NT2	C12 PARENT	9	1223032.741	1041918.343	1061645.142	41.429129	0.967	0.0233	42.2265	40.3535	41.7073	41.4291	0.08621
CTP	C00063	I3sg5	C12 PARENT	9	750548.0477	772116.5957	493698.2106	40.08786	0.3421	0.0085	39.8178	39.9733	40.4725	40.0879	0.08621
CTP	C00063	NT2	C13-01	9	0	0	0	0	0	NA	0	0	0	0	NA
CTP	C00063	I3sg5	C13-01	9	0	0	0	0	0	NA	0	0	0	0	NA
CTP	C00063	NT2	C13-04	9	0	0	0	0	0	NA	0	0	0	0	NA
CTP	C00063	I3sg5	C13-04	9	0	0	0	0	0	NA	0	0	0	0	NA
CTP	C00063	NT2	C13-05	9	1153918.527	1084420.408	1028514.502	40.748565	1.1198	0.0275	39.8403	41.9996	40.4058	40.7486	0.26128
CTP	C00063	I3sg5	C13-05	9	802798.1866	780795.3552	547289.8434	42.628062	2.2218	0.0521	42.5897	40.4227	44.8658	42.6261	0.26128
CTP	C00063	NT2	C13-06	9	145684.062	124075.185	113427.0294	4.7637935	0.2892	0.0607	5.0299	4.80544	4.45605	4.76379	0.83205
CTP	C00063	I3sg5	C13-06	9	113485.8699	73391.7253	60028.50756	4.9137346	1.1105	0.226	6.0206	3.79957	4.92103	4.91373	0.83205
CTP	C00063	NT2	C13-07	9	279830.881	190921.3794	214198.5402	8.490255	1.1354	0.1337	9.66146	7.39439	8.41491	8.49025	0.81781
CTP	C00063	I3sg5	C13-07	9	142141.7366	203739.7973	77332.08247	8.1427414	2.1678	0.2662	7.54084	10.5478	6.33954	8.14274	0.81781
CTP	C00063	NT2	C13-08	9	93895.85807	140639.7345	127678.7648	4.5682569	1.1687	0.2558	3.24185	5.44689	5.01593	4.56826	0.71607
CTP	C00063	I3sg5	C13-08	9	75984.58117	101535.2881	41487.99893	4.2296027	0.9435	0.2231	4.0311	5.2566	3.40111	4.2296	0.71607
Cystathionine	C02291	NT2	C12 PARENT	7	1266176.239	1122762.697	805596.9876	53.23166	1.5731	0.016	98.7556	99.9672	96.8467	98.5232	0.17927
Cystathionine	C02291	I3sg5	C12 PARENT	7	694193.1886	724643.6058	734288.3905	100	0	0	100	100	100	100	0.17927
Cystathionine	C02291	NT2	C13-01	7	15954.85351	368.9238088	26229.59614	1.4768339	1.5731	1.0652	1.2444	0.03285	3.15325	1.47683	0.17927
Cystathionine	C02291	I3sg5	C13-01	7	0	0	0	0							

Glc	C00031	I3sg5	C12 PARENT	6	215678.6398	313356.2146	318272.3475	1.5646368	0.2375	0.1518	1.29042	1.7004	1.70309	1.56464	0.22536
Glc	C00031	NT2	C13-05	6	288190.4801	259402.1027	523452.4569	1.7276505	0.2825	0.1635	1.65278	1.49009	2.04009	1.72765	0.77255
Glc	C00031	I3sg5	C13-05	6	270119.681	360728.6335	333797.8858	1.7865915	0.1707	0.0955	1.61614	1.95747	1.78617	1.78659	0.77255
Glc	C00031	NT2	C13-06	6	16887968.5	16942910.26	24798694.84	96.942596	0.3466	0.0036	96.8527	97.3253	96.6498	96.9426	0.38718
Glc	C00031	I3sg5	C13-06	6	16228092.67	17754265.15	18035844.2	96.648772	0.3942	0.0041	97.0934	96.3421	96.5107	96.6488	0.38718
GlcNac-6P	C00357	NT2	C12 PARENT	8	211322.9568	118462.8045	156081.0557	31.221382	7.2932	0.2336	35.0747	22.8098	35.7796	31.2214	0.5976
GlcNac-6P	C00357	I3sg5	C12 PARENT	8	114714.0613	83456.25815	44831.76296	27.312749	9.3075	0.3408	35.0563	29.8953	16.9866	27.3127	0.5976
GlcNac-6P	C00357	NT2	C13-06	8	141043.8294	149117.4483	138580.7852	27.963407	4.229	0.1512	23.41	28.7123	31.7679	27.9634	0.35457
GlcNac-6P	C00357	I3sg5	C13-06	8	72260.11636	120736.634	108089.8745	35.42906	11.6153	0.3278	22.0825	43.2497	40.955	35.4291	0.35457
GlcNac-6P	C00357	NT2	C13-08	8	250126.9339	251770.0788	141567.023	40.815211	8.0356	0.1969	41.5153	48.4779	32.4525	40.8152	0.63687
GlcNac-6P	C00357	I3sg5	C13-08	8	140253.9239	74968.84351	111002.0016	37.258191	9.0184	0.2421	42.8612	26.855	42.0584	37.2582	0.63687
Gln	C00064	NT2	C12 PARENT	5	713428254.4	756114748.8	763240843.5	99.56109	0.0874	0.0009	99.5161	99.5053	99.6618	99.5611	0.83951
Gln	C00064	I3sg5	C12 PARENT	5	512958964.5	641060554.7	431880066.1	99.577498	0.0983	0.001	99.6695	99.4739	99.5891	99.5775	0.83951
Gln	C00064	NT2	C13-01	5	270255.9304	153316.856	237477.5036	0.0296279	0.0088	0.2984	0.0377	0.02018	0.03101	0.02963	0.70901
Gln	C00064	I3sg5	C13-01	5	0	959441.5284	0	0.0496258	0.086	1.7321	0	0.14888	0	0.04963	0.70901
Gln	C00064	NT2	C13-02	5	0	0	0	0	0	NA	0	0	0	0	NA
Gln	C00064	I3sg5	C13-02	5	0	0	0	0	0	NA	0	0	0	0	NA
Gln	C00064	NT2	C13-03	5	811779.0268	1231560.505	565771.35	0.1163954	0.0442	0.3796	0.11324	0.16207	0.07388	0.1164	0.34867
Gln	C00064	I3sg5	C13-03	5	217910.0287	669499.5145	433724.315	0.0820806	0.0345	0.42	0.04234	0.10389	0.10001	0.08208	0.34867
Gln	C00064	NT2	C13-04	5	1439610.478	1293671.176	1281589.185	0.1794686	0.0185	0.1033	0.20081	0.17025	0.16735	0.17947	0.34218
Gln	C00064	I3sg5	C13-04	5	832122.4791	1060110.189	759698.5438	0.1671214	0.0071	0.0426	0.16168	0.1645	0.17518	0.16712	0.34218
Gln	C00064	NT2	C13-05	5	947290.0144	1080191.547	505158.9378	0.1134179	0.0414	0.365	0.13214	0.14215	0.06596	0.11342	0.70449
Gln	C00064	I3sg5	C13-05	5	651094.4127	701392.1853	588383.432	0.1236744	0.0136	0.1103	0.12651	0.10884	0.13568	0.12367	0.70449
Glu	C00025	NT2	C12 PARENT	5	339456146.7	269539866.9	293720932.9	63.037251	1.1437	0.0181	62.4004	62.3537	64.3573	63.0373	0.03388 *
Glu	C00025	I3sg5	C12 PARENT	5	237804638.8	293724588.1	199666638	65.31507	0.4915	0.0075	65.6468	65.548	64.7505	65.3151	0.03388 *
Glu	C00025	NT2	C13-01	5	6752858.665	6630254.264	5175992.006	1.303088	0.2069	0.1588	1.24134	1.5338	1.13412	1.30309	0.29542
Glu	C00025	I3sg5	C13-01	5	4106498.242	5179008.983	3655794.465	1.1583051	0.0261	0.0225	1.13361	1.15575	1.18555	1.15831	0.29542
Glu	C00025	NT2	C13-02	5	100206934	79682977.75	82003006.76	18.273894	0.2652	0.0145	18.4205	18.4334	17.9678	18.2739	0.03181 *
Glu	C00025	I3sg5	C13-02	5	61407043.9	77702191.11	54820312.07	17.356528	0.4133	0.0238	16.9516	17.3401	17.7778	17.3565	0.03181 *
Glu	C00025	NT2	C13-03	5	29014394.05	22574821.28	22346648.23	5.1507634	0.2272	0.0441	5.33356	5.22232	4.89641	5.15076	0.08346
Glu	C00025	I3sg5	C13-03	5	17407610.16	21610755.91	15108631.77	4.8425787	0.0501	0.0104	4.80543	4.82269	4.89962	4.84258	0.08346
Glu	C00025	NT2	C13-04	5	41878392.24	33331254.67	32656732.39	7.5214654	0.317	0.0421	7.69828	7.71065	7.15547	7.52147	0.02545 *
Glu	C00025	I3sg5	C13-04	5	25004303.75	29553089.69	21245779.16	6.795828	0.1739	0.0256	6.90252	6.59511	6.88985	6.79583	0.02545 *
Glu	C00025	NT2	C13-05	5	26688235.97	20516153.89	20485352.58	4.713538	0.2106	0.0447	4.90595	4.74608	4.48858	4.71354	0.21335
Glu	C00025	I3sg5	C13-05	5	16518655.96	20336669.19	13866114.31	4.5316903	0.0322	0.0071	4.56003	4.53836	4.49668	4.53169	0.21335
GlucA	C00191	NT2	C12 PARENT	6	9660.636463	9622.806175	0	12.192148	10.5935	0.8689	19.1457	17.4307	0	12.1921	0.81347
GlucA	C00191	I3sg5	C12 PARENT	6	0	17496.80148	0	9.3720597	16.2329	1.7321	0	28.1162	0	9.37206	0.81347
GlucA	C00191	NT2	C13-06	6	40797.8572	45583.16345	58997.95886	87.807852	10.5935	0.1206	80.8543	82.5693	100	87.8079	0.81347
GlucA	C00191	I3sg5	C13-06	6	20219.10337	44733.56597	17435.57127	90.62794	16.2329	0.1791	100	71.8838	100	90.6279	0.81347
Gly	C00037	NT2	C12 PARENT	2	14284660.67	13306448.2	12272274.82	94.468679	0.3734	0.004	94.0664	94.8043	94.5353	94.4687	0.13508
Gly	C00037	I3sg5	C12 PARENT	2	8011783.522	10514590.14	8279618.795	95.142253	0.5004	0.0053	95.7201	94.8533	94.8533	95.1423	0.13508
Gly	C00037	NT2	C13-01	2	0	0	0	0	0	NA	0	0	0	0	NA
Gly	C00037	I3sg5	C13-01	2	0	0	0	0	0	NA	0	0	0	0	NA
Gly	C00037	NT2	C13-02	2	901059.5874	729252.4625	735444.1267	5.5313206	0.3734	0.0675	5.9336	5.1957	5.46467	5.53132	0.13508
Gly	C00037	I3sg5	C13-02	2	358226.4102	50513.5886	449247.8433	4.8577469	0.5004	0.103	4.27988	5.14667	5.14669	4.85775	0.13508
Glycerol-3P	C00093	NT2	C12 PARENT	3	563828.2995	433593.3172	998476.5108	37.897788	2.2544	0.0595	38.4718	35.4118	39.8098	37.8978	0.64117
Glycerol-3P	C00093	I3sg5	C12 PARENT	3	1031047.71	920848.0701	661340.7024	37.035546	1.9289	0.0521	35.8801	35.9642	39.2623	37.0355	0.64117
Glycerol-3P	C00093	NT2	C13-03	3	901735.8594	790836.8757	1909643.307	62.102212	2.2544	0.0363	61.5282	64.5882	60.1902	62.1022	0.64117
Glycerol-3P	C00093	I3sg5	C13-03	3	1842543.435	1639609.45	1023074.799	62.964454	1.9289	0.0306	64.1199	64.0358	60.7377	62.9645	0.64117
GMP	C00144	NT2	C12 PARENT	10	136007.471	196444.1846	202531.6769	11.24924	2.402	0.2135	8.47565	12.6359	12.6359	11.2492	0.60084
GMP	C00144	I3sg5	C12 PARENT	10	114356.4045	198696.0546	51610.9794	13.263334	5.6609	0.4268	16.6282	16.4341	6.72769	13.2633	0.60084
GMP	C00144	NT2	C13-04	10	2146.260335	52128.29197	58173.39864	2.3720995	1.9434	0.8193	0.13375	3.35312	3.62943	2.3721	0.40856
GMP	C00144	I3sg5	C13-04	10	18148.39716	8204.809271	0	1.1058404	1.3703	1.2392	2.6389	0.67862	0	1.10584	0.40856
GMP	C00144	NT2	C13-05	10	1331488.97	1233788.719	1263244.072	80.383797	2.2609	0.0281	82.9751	79.3628	78.8135	80.3838	0.32645
GMP	C00144	I3sg5	C13-05	10	549667.5645	995207.0608	691368.4922	84.120446	5.3333	0.0634	79.9255	82.3133	90.1226	84.1204	0.32645
GMP	C00144	NT2	C13-06	10	133722.0733	60691.0127	78877.23613	5.719426	2.3201	0.4056	8.33323	3.90392	4.92113	5.71943	0.05398
GMP	C00144	I3sg5	C13-06	10	2865.225468	6940.362344	24163.02807	1.3801345	1.5345	1.1119	0.41662	0.57404	3.14974	1.38013	0.05398
GMP	C00144	NT2	C13-07	10	1320.239703	11566.99131	0	0.2754304	0.4079	1.4809	0.08227	0.74404	0	0.27544	0.61816
GMP	C00144	I3sg5	C13-07	10	2687.180592	0	0	0.130245	0.2256	1.7321	0.39073	0	0	0.13024	0.61816
GSH	C00051	NT2	C12 PARENT	10	77573593.43	73623339.68	66116659.54	69.359623	1.511	0.0218	68.2856	68.7058	71.0875	69.3596	0.08177
GSH	C00051	I3sg5	C12 PARENT	10	49241308.67	55333446.54	39496041.63	72.510974	1.8127	0.025	73.2109	73.8694	70.4526	72.511	0.08177
GSH	C00051	NT2	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA
GSH	C00051	I3sg5	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA
GSH	C00051	NT2	C13-02	10	21518585.86	20392768.7	16543176.99	18.58658	0.6939	0.0373	18.9421	19.0307	17.7869	18.5866	0.09115
GSH	C00051	I3sg5	C13-02	10	10901076.66	11521551.65	10165995.05	16.574197	1.4126	0.0852	16.2075	15.3811	18.134	16.5742	0.09115
GSH	C00051	NT2	C13-03	10	3989767.426	3549190.253	2914544.402	3.3192875	0.1893	0.057	3.51207	3.31213	3.13367	3.31929	0.31993
GSH	C00051	I3sg5	C13-03	10	1936476.487	2352681.765	1875929.589	3.1220575	0.2341	0.075	2.87911	3.1408	3.34626	3.12206	0.31993
GSH	C00051	NT2	C13-04	10	6736884.181	6350297.732	4935399.907	5.7209546	0.359	0.0627	5.93027	5.92614	5.30646	5.72095	0.04936 *
GSH	C00051	I3sg5	C13-04	10	3405504.11	3665331.43	2948452.953	5.0719386	0.1833	0.0361	5.06323	4.89317	5.25942		

GTP	C00044	NT2	C13-02	10	249028.8823	180283.3377	172241.6384	0.5819543	0.1102	0.1893	0.67174	0.61512	0.459	0.58195	0.37272
GTP	C00044	I3sg5	C13-02	10	40520.66532	93776.67252	107146.6205	0.41199026	0.2573	0.6128	0.17273	0.40069	0.68629	0.4199	0.37272
GTP	C00044	NT2	C13-03	10	201523.3889	258187.7229	377216.0705	0.8099198	0.2389	0.2949	0.5436	0.88093	1.00524	0.80992	0.27494
GTP	C00044	I3sg5	C13-03	10	293425.4572	352098.1005	110481.4694	1.1542992	0.4071	0.3527	1.25081	1.50443	0.70765	1.1543	0.27494
GTP	C00044	NT2	C13-04	10	770490.5615	671407.4617	469377.2087	1.8733336	0.5495	0.2933	2.07835	2.29082	1.25083	1.87333	0.0588
GTP	C00044	I3sg5	C13-04	10	163713.9135	302017.5293	62944.06035	0.7971655	0.4519	0.5669	0.69788	1.29045	0.40317	0.79717	0.0588
GTP	C00044	NT2	C13-05	10	27998367.24	22447335.72	29312290.99	76.742347	1.3017	0.017	75.5238	76.5895	78.1138	76.7423	0.429
GTP	C00044	I3sg5	C13-05	10	18711892.22	17444742.38	12219197.13	77.950004	1.9918	0.0256	79.765	75.8192	78.2658	77.95	0.429
GTP	C00044	NT2	C13-06	10	2976464.199	1789908.797	2136438.595	6.6097592	1.2462	0.1885	8.02882	6.1071	5.69335	6.60976	0.217
GTP	C00044	I3sg5	C13-06	10	747470.535	977553.8293	1059691.07	4.7168866	1.8603	0.3944	3.18632	4.17686	6.98748	4.71689	0.217
GTP	C00044	NT2	C13-07	10	890476.6279	531776.0261	790928.7718	2.1080448	0.2938	0.1394	2.402	1.8144	2.10773	2.10804	0.15306
GTP	C00044	I3sg5	C13-07	10	405007.5764	451775.6377	182911.5156	1.6094581	0.3927	0.244	1.72647	1.93033	1.17158	1.60946	0.15306
GTP	C00044	NT2	C13-08	10	8907.160807	0	63174.49994	0.0641263	0.0911	1.42	0.02403	0	0.16835	0.06413	0.28955
GTP	C00044	I3sg5	C13-08	10	0	0	0	0	0	NA	0	0	0	0	0.28955
IMP	C00130	NT2	C12 PARENT	10	59940.84125	98449.25236	75310.96383	17.40287	2.6025	0.1495	14.6039	19.7497	17.8551	17.4029	0.44135
IMP	C00130	I3sg5	C12 PARENT	10	38253.50786	108771.741	22277.88623	13.740766	6.9587	0.5064	10.3847	21.7415	9.09613	13.7408	0.44135
IMP	C00130	NT2	C13-05	10	350504.5348	400036.7579	346478.5487	82.59713	2.6025	0.0315	85.3961	80.2503	82.1449	82.5971	0.44135
IMP	C00130	I3sg5	C13-05	10	330110.9036	391524.4088	222638.0915	86.259234	6.9587	0.0807	89.6153	78.2585	90.9039	86.2592	0.44135
Lac	C00186	NT2	C12 PARENT	3	2282324.339	1544608.714	1982256.606	19.378653	2.8295	0.146	22.3165	19.1478	16.6716	19.3787	0.96021
Lac	C00186	I3sg5	C12 PARENT	3	1214854.225	1982800.644	1114513.847	19.260836	2.6016	0.1351	20.2828	21.1963	16.3034	19.2608	0.96021
Lac	C00186	NT2	C13-02	3	92415.53561	42155.69952	204090.1093	1.0475686	0.6098	0.5821	0.90364	0.52259	1.71648	1.04757	0.37858
Lac	C00186	I3sg5	C13-02	3	0	131379.2728	0	0.4681523	0.8109	1.7321	0	1.40446	0	0.46815	0.37858
Lac	C00186	NT2	C13-03	3	7852324.683	6479987.999	9703670.05	79.573779	2.5031	0.0315	76.7798	80.3296	81.6119	79.5738	0.78046
Lac	C00186	I3sg5	C13-03	3	4774734.42	7240274.613	5721561.673	80.271012	3.185	0.0397	79.7172	77.3992	83.6966	80.271	0.78046
Mal	C00149	NT2	C12 PARENT	4	46151175.87	44124817.66	39924937.9	65.385934	0.9308	0.0142	64.3213	65.7906	66.0459	65.3859	0.5587
Mal	C00149	I3sg5	C12 PARENT	4	30295339.12	31169693.36	24975234.64	65.887955	0.9982	0.0151	66.871	65.9176	64.8753	65.888	0.5587
Mal	C00149	NT2	C13-01	4	1594239.12	1207377.697	1168132.937	1.9848349	0.2157	0.1087	2.22191	1.80021	1.93238	1.98483	0.98382
Mal	C00149	I3sg5	C13-01	4	717947.0608	1071263.992	804131.5617	1.9796776	0.3533	0.1784	1.58473	2.26551	2.0888	1.97968	0.98382
Mal	C00149	NT2	C13-02	4	11441310.16	10336683.72	8998244.963	15.414443	0.5303	0.0344	15.9459	15.4121	14.8854	15.4144	0.60997
Mal	C00149	I3sg5	C13-02	4	6315938.727	6863661.534	6327744.235	14.964432	1.3071	0.0873	13.9412	14.5153	16.4369	14.9644	0.60997
Mal	C00149	NT2	C13-03	4	8782247.813	8026344.563	7261689.461	12.07331	0.146	0.0121	12.2399	11.6754	12.0127	12.0733	0.54879
Mal	C00149	I3sg5	C13-03	4	5538524.542	5770557.647	4621946.867	12.144887	0.1209	0.01	12.2252	12.2036	12.0059	12.1449	0.54879
Mal	C00149	NT2	C13-04	4	3782022.227	3373308.038	3097324.886	5.1204778	0.1217	0.0237	5.27104	5.02964	5.12375	5.12148	0.64771
Mal	C00149	I3sg5	C13-04	4	2436401.154	2410680.195	1768246.796	5.0340489	0.3977	0.0792	5.37788	5.09891	4.59317	5.02305	0.64771
Met	C00073	NT2	C12 PARENT	5	33880300.87	34575815.07	24790073.89	99.066426	0.309	0.0031	98.9959	98.7988	99.4046	99.0664	0.72249
Met	C00073	I3sg5	C12 PARENT	5	28414811.23	25204192.14	30656477.28	99.156643	0.2695	0.0027	99.4608	99.0616	98.9475	99.1566	0.72249
Met	C00073	NT2	C13-01	5	0	0	0	0	0	NA	0	0	0	0	NA
Met	C00073	I3sg5	C13-01	5	0	0	0	0	0	NA	0	0	0	0	NA
Met	C00073	NT2	C13-04	5	343648.1611	420365.4189	148492.1942	0.9335744	0.309	0.331	1.00412	1.20118	0.59543	0.93357	0.72249
Met	C00073	I3sg5	C13-04	5	154040.9848	238759.1569	326081.5886	0.8433567	0.2695	0.3196	0.53919	0.93841	1.05247	0.84336	0.72249
MTA	C00170	NT2	C12 PARENT	11	393772.183	234272.9379	185897.0001	18.892694	1.159	0.0613	19.7648	17.5775	19.3358	18.8927	0.34102
MTA	C00170	I3sg5	C12 PARENT	11	104044.2899	287757.2968	169077.8313	20.21451	1.7756	0.0878	19.3889	22.2526	19.0021	20.2145	0.34102
MTA	C00170	NT2	C13-01	11	0	0	0	0	0	NA	0	0	0	0	NA
MTA	C00170	I3sg5	C13-01	11	0	0	0	0	0	NA	0	0	0	0	NA
MTA	C00170	NT2	C13-02	11	11691.12485	5861.809752	5143.356656	0.520536	0.0746	0.1432	0.58682	0.43981	0.53498	0.52054	0.00046 ***
MTA	C00170	I3sg5	C13-02	11	0	772.832118	0	0.0199213	0.0345	1.7321	0	0.05976	0	0.01992	0.00046 ***
MTA	C00170	NT2	C13-03	11	4386.901268	3531.827039	3210.637575	0.2730454	0.0573	0.2099	0.22019	0.26499	0.33395	0.27305	0.14715
MTA	C00170	I3sg5	C13-03	11	0	3649.61256	0	0.0940761	0.1629	1.7321	0	0.28223	0	0.09408	0.14715
MTA	C00170	NT2	C13-04	11	30730.38913	12785.20604	16616.83315	1.4100377	0.4013	0.2846	1.54247	0.95927	1.72837	1.41004	0.76659
MTA	C00170	I3sg5	C13-04	11	0	12045.30625	22724.30392	1.1611794	1.2924	1.1124	0	0.93148	2.55391	1.16179	0.76659
MTA	C00170	NT2	C13-05	11	1442334.018	994644.5394	693105.4187	73.038737	1.3848	0.019	72.3959	74.6281	72.0922	73.0387	0.94985
MTA	C00170	I3sg5	C13-05	11	406241.1834	911696.7855	645685.6302	72.924264	2.6191	0.0359	75.704	70.5025	72.5664	72.9243	0.94985
MTA	C00170	NT2	C13-06	11	109372.1729	81704.82381	57442.27659	5.86495	0.3341	0.057	5.48978	6.13031	5.97476	5.86495	0.51429
MTA	C00170	I3sg5	C13-06	11	26332.68658	77219.86093	52298.56023	5.5854339	0.5893	0.1055	4.90716	5.97149	5.87765	5.58543	0.51429
NAD+	C00003	NT2	C12 PARENT	21	103488.936	114924.2041	87115.3312	3.1952744	0.1773	0.0555	3.0225	3.37678	3.18654	3.19527	0.64793
NAD+	C00003	I3sg5	C12 PARENT	21	70568.12653	101208.3373	47281.44665	3.0906975	0.3219	0.1042	2.77327	3.4169	3.08192	3.0907	0.64793
NAD+	C00003	NT2	C13-04	21	42137.05214	28481.57464	14176.89116	0.8620298	0.3567	0.4138	1.23066	0.83686	0.51857	0.86203	0.72354
NAD+	C00003	I3sg5	C13-04	21	23218.26753	31405.1793	3733.022587	0.7386861	0.4353	0.5893	0.91246	1.06027	0.24333	0.73869	0.72354
NAD+	C00003	NT2	C13-05	21	949338.593	916750.0395	796259.7941	27.929637	1.1087	0.0397	27.7264	26.9366	29.1259	27.9296	0.64897
NAD+	C00003	I3sg5	C13-05	21	741323.8656	885243.1422	407116.6651	28.519014	1.7574	0.0616	29.1334	29.8867	26.5369	28.519	0.64897
NAD+	C00003	NT2	C13-06	21	0	0	0	0	0	NA	0	0	0	0	0.04129 *
NAD+	C00003	I3sg5	C13-06	21	5205.643024	8712.77012	9474.762046	0.3721062	0.2173	0.5839	0.20458	0.29415	0.61759	0.37211	0.04129 *
NAD+	C00003	NT2	C13-07	21	58604.99468	55662.28063	52495.328	1.7557741	0.1474	0.0839	1.71162	1.63551	1.9202	1.75577	0.009 **
NAD+	C00003	I3sg5	C13-07	21	29225.46432	40391.10018	17146.38219	1.2099423	0.134	0.1108	1.14854	1.36365	1.11764	1.20994	0.009 **
NAD+	C00003	NT2	C13-08	21	40863.6729	59975.28974	20808.9137	1.2389525	0.5021	0.4053	1.19347	1.76223	0.76116	1.23895	0.13175
NAD+	C00003	I3sg5	C13-08	21	60808.08525	59131.05701	23221.86641	1.9665646	0.4388	0.2231	2.38971	1.99633	1.51366	1.96656	0.13175
NAD+	C00003	NT2	C13-09	21	95583.94302	91652.57496	88554.77628	2.9079399	0.2911	0.1001	2.79163	2.693	3.23919	2.90794	0.1892
NAD+	C00003	I3sg5	C13-09	21	46912.03448	83336.4089	38293.83693	2.3844058	0.4945	0.2074	1.8436	2.81352	2.49609	2.38441	0.1892
NAD+	C00003	NT2	C13-10	21	1909805.045	190349.524	1553471.102	56.83183	1.0582	0.0186	55.7778	57.8941			

NADP+	C00006	I3sg5	C13-05	21	57863.38276	92543.75107	19141.69671	30.23809	1.8541	0.0613	31.9329	30.5236	28.2578	30.2381	0.54182
NADP+	C00006	NT2	C13-06	21	0	0	0	0	0	NA	0	0	0	0	NA
NADP+	C00006	I3sg5	C13-06	21	0	0	0	0	0	NA	0	0	0	0	NA
NADP+	C00006	NT2	C13-07	21	6188.203552	3568.646971	3141.007597	1.1652443	0.229	0.1965	1.40244	0.94554	1.14776	1.16524	0.82078
NADP+	C00006	I3sg5	C13-07	21	2068.037899	4599.120952	424.9154325	1.0951609	0.4466	0.4078	1.14128	1.51692	0.62728	1.09516	0.82078
NADP+	C00006	NT2	C13-08	21	8548.416299	8118.981842	4816.762071	1.9495363	0.1958	0.1004	1.93734	2.15118	1.76009	1.94954	0.46403
NADP+	C00006	I3sg5	C13-08	21	3478.503182	5550.550629	2186.052127	2.3258484	0.7818	0.3361	1.91967	1.83073	3.22714	2.32585	0.46403
NADP+	C00006	NT2	C13-09	21	10424.60947	8821.80329	7539.066973	2.4849292	0.2341	0.0942	2.36254	2.33739	2.75485	2.48493	0.26471
NADP+	C00006	I3sg5	C13-09	21	4709.108096	6108.318295	1013.753466	2.0366823	0.5515	0.2708	2.5988	2.0147	1.49655	2.03668	0.26471
NADP+	C00006	NT2	C13-10	21	251112.1069	204676.8245	157673.0065	56.251874	1.7858	0.0317	56.9099	54.2304	57.6153	56.2519	0.92332
NADP+	C00006	I3sg5	C13-10	21	96129.1382	169601.072	40985.32519	56.49803	3.7581	0.0665	53.0505	55.9393	60.5043	56.498	0.92332
NADP+	C00006	NT2	C13-11	21	8683.395159	13753.12201	5477.345582	2.5377948	0.9581	0.3775	1.96793	3.64398	2.00148	2.53779	0.85762
NADP+	C00006	I3sg5	C13-11	21	5803.991027	10099.18156	307.7357919	2.3294418	1.6252	0.6977	3.20303	3.331	0.45429	2.32944	0.85762
NADP+	C00006	NT2	C13-12	21	8888.219171	4521.314718	2757.479064	1.4066373	0.5348	0.3802	2.01435	1.19795	1.00761	1.40664	0.22894
NADP+	C00006	I3sg5	C13-12	21	1941.292391	1665.018997	735.3496411	0.9020203	0.3057	0.3389	1.07134	0.54917	1.08555	0.90202	0.22894
Orotate	C00295	NT2	C12 PARENT	5	2005618.673	1783282.924	1043646.18	72.628266	1.5418	0.0212	72.98	70.941	73.9638	72.6283	0.06835
Orotate	C00295	I3sg5	C12 PARENT	5	691725.658	1508821.48	586996.7178	68.837512	2.1546	0.0313	68.6952	71.0598	66.7576	68.8375	0.06835
Orotate	C00295	NT2	C13-01	5	0	16024.92297	3601.577509	0.2975784	0.3208	1.0782	0	0.63749	0.25525	0.29758	0.73446
Orotate	C00295	I3sg5	C13-01	5	6003.994871	0	0	0.198752	0.3442	1.7321	0.59626	0	0	0.19875	0.73446
Orotate	C00295	NT2	C13-02	5	46407.15738	15382.61945	0	0.7668636	0.8549	1.1148	1.68865	0.61194	0	0.76686	0.32084
Orotate	C00295	I3sg5	C13-02	5	0	11099.67665	0	0.1742509	0.3018	1.7321	0	0.52275	0	0.17425	0.32084
Orotate	C00295	NT2	C13-03	5	696150.2551	699065.3532	363774.6065	26.307292	1.3203	0.0502	25.3314	27.8096	25.7809	26.3073	0.04773 *
Orotate	C00295	I3sg5	C13-03	5	309219.351	603392.098	292299.4522	30.789485	2.4135	0.0784	30.7085	28.4175	33.2424	30.7895	0.04773 *
Orotate	C00295	NT2	C13-04	5	0	0	0	0	0	NA	0	0	0	0	NA
Orotate	C00295	I3sg5	C13-04	5	0	0	0	0	0	NA	0	0	0	0	NA
Orotidine	X00006	NT2	C12 PARENT	10	2120443.295	1963117.326	1919799.36	48.982386	0.7307	0.0149	48.1601	49.5573	49.2297	48.9824	0.07079
Orotidine	X00006	I3sg5	C12 PARENT	10	1355207.826	1567248.358	1090114.497	52.062932	2.0558	0.0395	53.3872	53.107	49.6946	52.0629	0.07079
Orotidine	X00006	NT2	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA
Orotidine	X00006	I3sg5	C13-01	10	0	0	0	0	0	NA	0	0	0	0	NA
Orotidine	X00006	NT2	C13-04	10	27470.25015	16838.61785	21520.82774	0.533617	0.1007	0.1886	0.62391	0.42508	0.55186	0.53362	0.1599
Orotidine	X00006	I3sg5	C13-04	10	14503.1557	0	0	0.1904462	0.3299	1.7321	0.57134	0	0	0.19045	0.1599
Orotidine	X00006	NT2	C13-05	10	1641741.934	1418280.763	1374900.41	36.115941	1.0509	0.0291	37.2877	35.8033	35.2568	36.1159	0.36193
Orotidine	X00006	I3sg5	C13-05	10	859008.9007	941802.0626	819209.9672	34.366101	2.7537	0.0801	33.8399	31.9135	37.345	34.3661	0.36193
Orotidine	X00006	NT2	C13-06	10	57727.96304	24900.24832	47368.49058	1.0514659	0.3694	0.3513	1.31113	0.62859	1.21468	1.05147	0.18279
Orotidine	X00006	I3sg5	C13-06	10	0	28942.63266	10124.4542	0.4807585	0.4907	1.0206	0	0.98074	0.46154	0.48076	0.18279
Orotidine	X00006	NT2	C13-07	10	257395.6178	265160.61	259268.7133	6.3960905	0.4769	0.0746	5.84604	6.69376	6.64847	6.39609	0.78403
Orotidine	X00006	I3sg5	C13-07	10	148736.4412	190903.6275	143708.3992	6.2931264	0.3779	0.0601	5.85934	6.46887	6.55117	6.29313	0.78403
Orotidine	X00006	NT2	C13-08	10	298125.698	273012.8062	276816.7732	6.9205181	0.1655	0.0239	6.77111	7.09846	6.92052	6.92052	0.55276
Orotidine	X00006	I3sg5	C13-08	10	160995.1389	222215.0362	130472.1785	6.6066366	0.8235	0.1247	6.34226	7.52988	5.94778	6.60664	0.55276
P-Creatine	C02305	NT2	C12 PARENT	4	2384468.35	2573297.767	3106549.009	99.040987	0.831	0.0084	98.5348	98.5881	100	99.041	0.56009
P-Creatine	C02305	I3sg5	C12 PARENT	4	2579081.367	2493377.794	1521268.285	99.423596	0.6321	0.0064	99.5232	100	98.7476	99.4236	0.56009
P-Creatine	C02305	NT2	C13-01	4	11573.99242	11026.31895	0	0.3002397	0.2615	0.871	0.47828	0.42244	0	0.30024	0.43244
P-Creatine	C02305	I3sg5	C13-01	4	9933.423924	0	0	0.1727724	0.2213	1.7321	0.38332	0	0	0.17277	0.43244
P-Creatine	C02305	NT2	C13-02	4	23881.56412	25826.03419	0	0.6587729	0.5705	0.866	0.98687	0.98945	0	0.65877	0.70697
P-Creatine	C02305	I3sg5	C13-02	4	2423.04855	0	19293.88628	0.4486316	0.6976	1.5551	0.0935	0	1.25239	0.44863	0.70697
PEP	C00074	NT2	C12 PARENT	3	0	0	13021.08884	0.8668154	1.5014	1.7321	0	0	2.60045	0.86682	0.15979
PEP	C00074	I3sg5	C12 PARENT	3	42256.11615	15642.03556	11163.89226	4.6262745	3.4656	0.7491	8.6044	2.26136	3.01307	4.62627	0.15979
PEP	C00074	NT2	C13-03	3	562633.6168	466720.8494	487704.0722	99.133185	1.5014	0.0151	100	100	97.3996	99.1332	0.15979
PEP	C00074	I3sg5	C13-03	3	448842.7565	676068.515	359352.0127	95.373725	3.4656	0.0363	91.3956	97.7386	96.9869	95.3737	0.15979
Pro	C00148	NT2	C12 PARENT	5	294753519.1	245530755.7	200559820.2	81.608777	0.4064	0.005	81.1747	81.6713	81.9802	81.6088	0.05431
Pro	C00148	I3sg5	C12 PARENT	5	126955831.7	156060900.2	137215015.9	84.528164	1.8309	0.0217	86.6423	83.4653	83.4769	84.5282	0.05431
Pro	C00148	NT2	C13-01	5	3976745.138	4185429.677	2049423.222	1.1083712	0.2775	0.2503	1.09519	1.39221	0.83772	1.10837	0.33986
Pro	C00148	I3sg5	C13-01	5	52782.25395	2101456.159	1564025.377	0.7038109	0.5847	0.8308	0.03602	1.12391	0.9515	0.70381	0.33986
Pro	C00148	NT2	C13-03	5	19832716.1	15116279.4	12694269.62	5.2263105	0.2193	0.042	5.4619	5.02816	5.18887	5.22631	0.0338 *
Pro	C00148	I3sg5	C13-03	5	5260970.473	8447775.392	7349900.009	4.191195	0.521	0.1243	3.5904	4.51808	4.4651	4.1912	0.0338 *
Pro	C00148	NT2	C13-04	5	27290174.99	22195440.87	17773928.75	7.3879356	0.1253	0.017	7.51568	7.38291	7.26522	7.38794	0.0722
Pro	C00148	I3sg5	C13-04	5	81144002.395	12300551.02	11408608.54	6.3523353	0.7283	0.1146	5.53776	6.57864	6.94061	6.35234	0.0722
Pro	C00148	NT2	C13-05	5	17256784	13604762.82	11566685.64	4.6686123	0.1247	0.0267	4.7525	4.52538	4.72796	4.66861	0.00645 **
Pro	C00148	I3sg5	C13-05	5	6144710.718	8066388.838	6847619.189	4.2244947	0.0788	0.0187	4.19352	4.31411	4.16586	4.22449	0.00645 **
Propanoyl-CoA	C00100	NT2	C12 PARENT	24	1453.322549	1852.811813	3384.146769	21.848135	1.119	0.0512	22.75	20.5959	22.1985	21.8481	0.4484
Propanoyl-CoA	C00100	I3sg5	C12 PARENT	24	3063.239657	865.0843734	2028.384174	24.427858	5.203	0.213	30.4343	21.3074	21.5419	24.4279	0.4484
Propanoyl-CoA	C00100	NT2	C13-05	24	4934.914654	6636.097745	11091.31605	74.590411	2.3583	0.0316	77.25	73.767	72.7542	74.5904	0.37823
Propanoyl-CoA	C00100	I3sg5	C13-05	24	7001.859489	3097.720756	6632.69546	72.110551	3.6606	0.0508	69.5657	76.2982	70.4407	72.1016	0.37823
Propanoyl-CoA	C00100	NT2	C13-06	24	0	507.115888	769.4489392	3.5614538	3.0984	0.87	0	5.63711	5.04725	3.56145	0.77209
Propanoyl-CoA	C00100	I3sg5	C13-06	24	0	97.21375939	754.9139112	3.4705915	4.1156	1.1858	0	2.39442	8.01736	3.47059	0.97709
R5P	C00117	NT2	C12 PARENT	5	20649.28217	18903.57978	0	2.0654608	1.7898	0.8665	3.0365	3.15988	0	2.06546	0.11627
R5P	C00117	I3sg5	C12 PARENT	5	0	0	0	0	0	NA	0	0	0	0	0.11627
R5P	C00117	NT2	C13-05	5	659385.8791	579333.6178	747973.2826	97.934539	1.7898	0.0183	96.9635	96.8401	100	97.9345	0.11627
R5P	C00117	I3sg5	C13-05	5	573417.5413	529424.1485	627469.5018	100	0	0	100	100	100	100	0.11627
S7P	C05382	NT2	C12 PARENT	7	43525.05266	70818.4658	96197.7364	20.288985	2.885	0.1422	16.9752	22.2352	21.6593	20.289	0.20263
S7P	C05382	I3sg5													

Sorbitol	C00794	NT2	C12 PARENT	6	24815356.36	61663364.95	32849229.66	98.112811	0.8681	0.0088	97.1826	98.9014	98.2544	98.1128	0.98154
Sorbitol	C00794	I3sg5	C12 PARENT	6	41200255.31	21046537.03	24231548.76	98.09196	1.1824	0.0121	99.0803	96.782	98.4136	98.092	0.98154
Sorbitol	C00794	NT2	C13-01	6	0	0	0	0	0	NA	0	0	0	0	NA
Sorbitol	C00794	I3sg5	C13-01	6	0	0	0	0	0	NA	0	0	0	0	NA
Sorbitol	C00794	NT2	C13-06	6	719416.4797	684947.5826	583598.9495	1.8871894	0.8681	0.46	2.8174	1.09858	1.74559	1.88719	0.98154
Sorbitol	C00794	I3sg5	C13-06	6	382453.8929	699799.7259	390597.4873	1.9080404	1.1824	0.6197	0.91974	3.21801	1.58637	1.90804	0.98154
Succ	C00042	NT2	C12 PARENT	4	2591204.804	2203844.459	3249629.093	78.146132	0.9458	0.0121	78.708	77.0542	78.6762	78.1461	0.00375 **
Succ	C00042	I3sg5	C12 PARENT	4	2528543.586	2654748.873	2009667.698	82.19056	0.6657	0.0081	82.3998	81.4453	82.7265	82.1906	0.00375 **
Succ	C00042	NT2	C13-01	4	0	0	0	0	0	NA	0	0	0	0	NA
Succ	C00042	I3sg5	C13-01	4	0	0	0	0	0	NA	0	0	0	0	NA
Succ	C00042	NT2	C13-02	4	439382.0956	291429.4174	461058.8362	11.566091	1.6166	0.1398	13.3463	10.1894	11.1626	11.5661	0.11233
Succ	C00042	I3sg5	C13-02	4	309429.1888	298432.6206	231904.277	9.5951515	0.4659	0.0486	10.0836	9.15565	9.54617	9.59515	0.11233
Succ	C00042	NT2	C13-03	4	140434.8828	224093.6482	267474.9302	6.1922048	1.8015	0.2909	4.26572	7.83511	6.47579	6.1922	0.28057
Succ	C00042	I3sg5	C13-03	4	146400.4475	177926.7524	102995.314	4.8230798	0.6111	0.1267	4.77088	5.45863	4.23973	4.82308	0.28057
Succ	C00042	NT2	C13-04	4	121154.1285	140754.0136	152220.8473	4.0955716	0.7151	0.1746	3.68006	4.92126	3.68539	4.09557	0.26217
Succ	C00042	I3sg5	C13-04	4	84254.63437	128438.8144	84722.95772	3.2912088	0.6032	0.1779	2.74568	3.94039	3.48756	3.29121	0.26217
Succinyl-CoA	C00091	NT2	C12 PARENT	25	5720.871171	4820.536982	5920.928823	24.458081	2.0245	0.0828	22.473	26.5198	24.3814	24.4581	0.03758 *
Succinyl-CoA	C00091	I3sg5	C12 PARENT	25	2624.679324	1965.743981	1328.438063	20.585365	0.8365	0.0406	20.4534	19.8227	21.48	20.5854	0.03758 *
Succinyl-CoA	C00091	NT2	C13-05	25	14396.14515	10840.43327	16700.50184	61.653139	6.3536	0.1031	56.5517	59.6377	68.777	61.6531	0.33289
Succinyl-CoA	C00091	I3sg5	C13-05	25	8495.102687	6714.309775	3942.502176	65.885101	1.9987	0.0303	66.2	67.7076	63.7477	65.8851	0.33289
Succinyl-CoA	C00091	NT2	C13-06	25	4074.586153	2516.165276	866.1159288	11.138333	6.646	0.5967	16.006	13.8425	3.56653	11.1383	0.5725
Succinyl-CoA	C00091	I3sg5	C13-06	25	1712.698229	1236.569731	913.6023348	13.529535	1.1622	0.0859	13.3466	12.4697	14.7724	13.5295	0.5725
Succinyl-CoA	C00091	NT2	C13-07	25	1265.018348	0	797.0277289	2.7504476	2.5269	0.9187	4.96931	0	3.28203	2.75045	0.13248
Succinyl-CoA	C00091	I3sg5	C13-07	25	0	0	0	0	0	NA	0	0	0	0	0.13248
UDP	C00015	NT2	C12 PARENT	9	1169622.375	1125800.059	904563.3619	13.725836	0.3483	0.0254	13.3854	13.7105	14.0815	13.7258	0.08696
UDP	C00015	I3sg5	C12 PARENT	9	727098.0705	753870.4435	552127.7876	14.732332	0.6894	0.0468	14.4875	15.5107	14.1988	14.7323	0.08696
UDP	C00015	NT2	C13-01	9	0	0	0	0	0	NA	0	0	0	0	NA
UDP	C00015	I3sg5	C13-01	9	0	0	0	0	0	NA	0	0	0	0	NA
UDP	C00015	NT2	C13-02	9	0	0	0	0	0	NA	0	0	0	0	NA
UDP	C00015	I3sg5	C13-02	9	0	0	0	0	0	NA	0	0	0	0	NA
UDP	C00015	NT2	C13-03	9	70796.95061	74610.46108	29753.33627	0.7273454	0.234	0.3217	0.81022	0.90864	0.46318	0.72735	0.03955 *
UDP	C00015	I3sg5	C13-03	9	16249.99213	12165.62535	13835.77418	0.309965	0.0541	0.1745	0.32378	0.25031	0.35581	0.30996	0.03955 *
UDP	C00015	NT2	C13-04	9	166224.2327	90733.2518	122609.2866	1.6386627	0.4622	0.282	1.90231	1.10499	1.90868	1.63866	0.14603
UDP	C00015	I3sg5	C13-04	9	28589.73588	47072.3883	55180.34355	0.9857343	0.425	0.4311	0.56965	0.9685	1.41905	0.98573	0.14603
UDP	C00015	NT2	C13-05	9	4778871.53	4590443.958	3634238.77	55.72339	0.9552	0.0171	54.6905	55.9047	56.5275	55.7234	0.60349
UDP	C00015	I3sg5	C13-05	9	2812854.939	2590765.261	2178454.151	55.124327	1.5761	0.0286	56.0463	53.3045	56.0253	55.1243	0.60349
UDP	C00015	NT2	C13-06	9	642722.6932	570209.2744	421382.3892	6.9531688	0.3979	0.0572	7.35547	6.94429	6.55975	6.95317	0.17809
UDP	C00015	I3sg5	C13-06	9	342913.3592	407409.9146	331724.2199	7.9152439	0.9406	0.1188	6.83256	8.38238	6.53079	7.91524	0.17809
UDP	C00015	NT2	C13-07	9	1170416.215	1125163.431	867598.8588	13.534468	0.1561	0.0115	13.3945	13.7028	13.5061	13.5345	0.62185
UDP	C00015	I3sg5	C13-07	9	698443.1208	663433.0198	472043.9996	13.235279	0.9584	0.0724	13.9165	13.65	12.1393	13.2353	0.62185
UDP	C00015	NT2	C13-08	9	739370.2684	634238.3124	443611.5084	7.6971288	0.7782	0.1011	8.46153	7.72406	6.90579	7.69713	0.99998
UDP	C00015	I3sg5	C13-08	9	392660.5563	385598.2257	285185.2942	6.7971189	0.3193	0.0415	7.82378	7.93361	7.33397	6.79712	0.99998
UDP-GlcNac	C00043	NT2	C12 PARENT	17	846607.5769	913110.3755	1074116.315	4.2284197	0.4349	0.1029	4.03827	3.92098	4.72601	4.22842	0.03833 *
UDP-GlcNac	C00043	I3sg5	C12 PARENT	17	821801.709	853990.3916	737076.5427	5.2627827	0.3972	0.0755	4.80463	5.47456	5.50916	5.26278	0.03833 *
UDP-GlcNac	C00043	NT2	C13-01	17	0	0	0	0	0	NA	0	0	0	0	NA
UDP-GlcNac	C00043	I3sg5	C13-01	17	0	0	0	0	0	NA	0	0	0	0	NA
UDP-GlcNac	C00043	NT2	C13-02	17	212331.3946	129026.3191	226479.435	0.8544307	0.2603	0.3046	1.01281	0.55405	0.99643	0.85443	0.33214
UDP-GlcNac	C00043	I3sg5	C13-02	17	119205.9511	94125.11375	99928.30065	0.6824085	0.0728	0.1067	0.69693	0.60339	0.7469	0.68241	0.33214
UDP-GlcNac	C00043	NT2	C13-04	17	36908.02564	27194.27243	95953.46184	0.2383288	0.1619	0.6795	0.17605	0.11677	0.42216	0.23833	0.13048
UDP-GlcNac	C00043	I3sg5	C13-04	17	116676.0908	105268.6291	37628.67611	0.5460741	0.2294	0.42	0.68214	0.67483	0.28125	0.54607	0.13048
UDP-GlcNac	C00043	NT2	C13-05	17	2016538.721	2290385.929	2589276.178	10.281944	0.9673	0.0941	9.61878	9.83512	11.3919	10.2819	0.0197 *
UDP-GlcNac	C00043	I3sg5	C13-05	17	2298017.659	2111245.042	1617515.453	13.019797	0.8069	0.062	13.4353	13.5343	12.0899	13.0198	0.0197 *
UDP-GlcNac	C00043	NT2	C13-06	17	1273220.319	1833316.177	1884431.212	7.4121562	1.1783	0.159	6.07319	8.72424	8.29085	7.41216	0.74008
UDP-GlcNac	C00043	I3sg5	C13-06	17	1372858.364	1205324.582	969757.4371	7.6671543	0.3924	0.0512	8.02636	7.72681	7.2483	7.66715	0.74008
UDP-GlcNac	C00043	NT2	C13-07	17	888535.2822	970082.3179	1010710.582	4.2835556	0.146	0.0341	4.23827	4.16562	4.44678	4.28356	0.00375 **
UDP-GlcNac	C00043	I3sg5	C13-07	17	1034156.914	932302.1721	711411.3775	5.780022	0.4022	0.0696	6.04615	5.97658	5.31733	5.78002	0.00375 **
UDP-GlcNac	C00043	NT2	C13-08	17	1626275.684	2032888.542	1575252.313	7.8057412	0.9004	0.1154	7.75725	8.7294	6.93057	7.80574	0.6588
UDP-GlcNac	C00043	I3sg5	C13-08	17	1325325.588	1162687.384	998054.9381	7.5539138	0.1685	0.0223	7.74846	7.45348	7.4598	7.55391	0.6588
UDP-GlcNac	C00043	NT2	C13-09	17	248607.2024	330199.7756	225805.7978	1.1907028	0.2125	0.1772	1.18584	1.41791	0.99347	1.19071	0.9753
UDP-GlcNac	C00043	I3sg5	C13-09	17	132043.0086	240219.9201	175378.9589	1.2075902	0.3943	0.3265	0.77198	1.53994	1.31084	1.20759	0.9753
UDP-GlcNac	C00043	NT2	C13-10	17	395305.5886	379691.3314	325477.935	1.6493355	0.2274	0.1379	1.88559	1.63043	1.43199	1.64934	0.42612
UDP-GlcNac	C00043	I3sg5	C13-10	17	260223.6235	281434.7025	317598.4066	1.8997932	0.4342	0.2286	1.52139	1.80415	2.37384	1.89979	0.42612
UDP-GlcNac	C00043	NT2	C13-11	17	4134236.951	4796454.034	4820790.211	20.518012	0.7618	0.0371	19.7201	20.5964	21.2376	20.518	0.26993
UDP-GlcNac	C00043	I3sg5	C13-11	17	3563540.076	2945954.63	2507943.66	19.488178	1.1677	0.0599	20.8341	18.8852	18.7452	19.4882	0.26993
UDP-GlcNac	C00043	NT2	C13-12	17	948436.1617	900652.422	717348.7478	3.8491884	0.6841	0.1777	4.52399	3.86748	3.15609	3.84919	0.52056
UDP-GlcNac	C00043	I3sg5	C13-12	17	497708.8371	534360.7017	434908.546	3.47987	0.599	0.1721	2.90983	3.42555	4.10422	3.47987	0.52056
UDP-GlcNac	C00043	NT2	C13-13	17	4660569.786	4943626.198	4811264.254	21.542319	0.5969	0.0277	22.2307	21.2284	20.1679	21.5423	0.02421 *
UDP-GlcNac	C00043	I3sg5	C13-13	17	3246266.995	2988068.235	2733312.323	19.521355	0.7916	0.0405	18.9792	19.1552	20.4297	19.5214	0.02421 *
UDP-GlcNac	C00043	NT2	C13-14	17	1433532.869	1420952.49	1367492.492	6.3186902	0.4516	0.0715	6.83788	6.10169	6.0165	6.31869	0.04209 *
UDP-GlcNac	C00043	I3sg5	C13-14	17	959030.1384	864364.0216	733160.6664								

UTP	C00075	I3sg5	C13-06	9	321193.5581	326214.9716	295009.1287	6.8555331	1.4344	0.2092	5.70451	6.39954	8.46255	6.85553	0.45242
UTP	C00075	NT2	C13-07	9	1049026.972	1036008.149	889911.7487	12.51445	1.0799	0.0863	12.8818	13.3628	11.2988	12.5144	0.47557
UTP	C00075	I3sg5	C13-07	9	772920.4697	730726.7989	411526.9955	13.28912	1.3208	0.0994	13.7273	14.3351	11.8049	13.2891	0.47557
UTP	C00075	NT2	C13-08	9	690455.0006	517742.0606	533301.0718	7.3092318	1.0138	0.1387	8.47864	6.67801	6.77105	7.30923	0.43044
UTP	C00075	I3sg5	C13-08	9	447462.367	388071.153	276529.5859	7.8308488	0.1888	0.0241	7.94709	7.613	7.93245	7.83085	0.43044