

phosphoenolpyruvate	-	4.605825	13904.01	12959.06	4692.772	10703.98	9903.975	8460.327	13899.4	12954.45	4688.166	10699.38	9899.369	8455.722	1	0.932015	0.3372926	0.769773	0.712215	0.608351
pipecolic acid	+	14.38383	25163.93	101590.8	224463.3	20284.04	29494.27	65315.81	25149.55	101576.4	224448.9	20269.66	29479.89	65301.42	1	4.038897	8.9245692	0.805965	1.172184	2.596525
proline	+	158.2713	342138.5	302899	327209.1	271528.7	251539	251669.4	341980.3	302740.7	327050.8	271370.4	251380.7	251511.1	1	0.885258	0.956344	0.793527	0.735074	0.735455
putrescine	succini	0	2935.725	3337.459	5263.753	0	0	640.7718	2935.725	3337.459	5263.753	0	0	640.7718	1	1.136843	1.7929996	0	0	0.218267
pyridoxine	+	4.344012	137610.1	84489.14	62072.19	105703.6	82874.35	67808.72	137605.8	84484.8	62067.85	105699.2	82870	67804.38	1	0.613963	0.4510555	0.768131	0.602228	0.492744
pyruvate	-	50.81034	392.9924	3576.038	8107.641	762.0098	2246.545	3787.368	342.1821	3525.227	8056.831	711.1995	2195.735	3736.557	1	10.3022	23.545447	2.078424	6.416861	10.91979
riboflavin	+	4.14241	6282.811	6373.145	6027.833	4443.917	5773.187	6472.471	6278.668	6369.002	6023.691	4439.775	5769.045	6468.329	1	1.014387	0.9593899	0.70712	0.918833	1.030207
S-adenosyl-L-homocysteine	-	10.3806	126.5374	24.13561	545.238	40.64875	75.6385	116.6354	116.1568	13.75501	534.8574	30.26816	65.25791	106.2548	1	0.118418	4.6046164	0.26058	0.561809	0.914754
S-adenosyl-L-methionine	+	4.041861	2874.127	1648.125	1897.832	2845.639	2252.908	1796.657	2870.086	1644.083	1893.79	2841.597	2248.866	1792.615	1	0.572834	0.6598374	0.990074	0.783554	0.624586
serine	+	3.938359	16318.26	11135.1	12252.3	13992.87	11257.29	13190.16	16314.32	11131.17	12248.36	13988.94	11253.35	13186.22	1	0.682294	0.7507732	0.857463	0.689784	0.80826
shikimate-3-phosphate	-	161.2534	3729.028	3496.133	3452.114	3132.445	2987.287	3179.629	3567.774	3334.879	3290.86	2971.192	2826.034	3018.376	1	0.934723	0.9223846	0.832786	0.7921	0.846011
S-methyl-5'-thioadenosine	+	16.73037	3866.414	5093.348	6533.147	4527.059	7214.477	6325.214	3849.684	5076.618	6516.417	4510.329	7197.746	6308.484	1	1.31871	1.6927148	1.17161	1.869698	1.638702
sn-glycerol-3-phosphate	-	42.25247	144763.3	109321.2	102935.3	128853	117804.8	130867.2	44721	109278.9	102893.1	128810.7	117762.5	130824.9	1	0.7551	0.7109753	0.890062	0.813721	0.90398
spermidine	succini	0	9648.107	17985.84	13089.7	1724.506	3178.335	3777.541	9648.107	17985.84	13089.7	1724.506	3178.335	3777.541	1	1.864183	1.3567115	0.17874	0.329426	0.391532
S-ribosyl-L-homocysteine	-	14.09893	9.166197	5.726354	10.89829	4.605443	7.048705	5.99324	-4.93273	-8.37257	-3.20063	-9.49348	-7.05022	-8.10569	1	1.697351	0.6488566	1.92459	1.429274	1.643246
succinate	-	43.87971	723.2119	998.4777	1623.682	1315.037	615.5911	755.5184	679.3322	954.598	1579.802	1271.157	571.7113	711.6387	1	1.405201	2.3255219	1.871186	0.841578	1.047556
thiamine	+	4.228549	14023.83	12341.46	12082.27	10408.62	10339.44	8544.618	14019.6	12337.23	12078.04	10404.39	10335.21	8540.389	1	0.879999	0.8615111	0.742132	0.737198	0.609175
threonine	+	12.99917	19813.55	16578.56	18574.4	18110.19	17862.85	15717.67	19800.55	16565.57	18561.4	18097.19	17849.85	15704.67	1	0.836622	0.9374185	0.913974	0.901482	0.793143
tryptophan	+	4.146831	80707.7	61059.65	61057.35	48783.88	37046.98	39647.22	80703.55	61055.5	61053.2	48779.73	37042.83	39643.07	1	0.75654	0.756512	0.604431	0.458999	0.491218
tyrosine	+	3.967036	21000.41	15359.66	15408.34	19275.83	15553.01	15622.69	20996.44	15355.69	15404.37	19271.87	15549.04	15618.72	1	0.731347	0.7336659	0.917864	0.740556	0.743875
UDP-D-glucose	-	4.981446	150105.4	162884.5	152660.7	156886.7	159910.5	158250	150100.4	162879.6	152655.7	156881.7	159905.5	158245	1	1.085137	1.0170239	1.045179	1.065324	1.054261
UDP-D-glucuronate	-	8.465871	6036.488	5145.964	2894.501	5455.293	4897.803	4196.331	6028.022	5137.498	2886.035	5446.828	4889.337	4187.865	1	0.852269	0.4787698	0.903584	0.811101	0.694733
UDP-N-acetyl-glucosamine	-	4.75615	25101.58	29386.21	29533.72	31216.91	31364.66	33897.19	25096.83	29381.45	29528.97	31212.16	31359.91	33892.43	1	1.170724	1.1766015	1.243669	1.249556	1.350467
UTP	-	5.097798	1324.281	1944.625	2009.408	554.4474	1530.207	2162.685	1319.183	1939.527	2004.31	549.3496	1525.109	2157.587	1	1.470248	1.5193566	0.416432	1.156101	1.635548
valine	+	4.041468	21644.29	19871.68	21942.11	15186.25	11623.33	15482	21640.24	19867.64	21938.06	15182.21	11619.29	15477.96	1	0.918087	1.0137623	0.701573	0.53693	0.71524

*Metabolites changed >2-fold in either direction are color-indicated (red = more than 2-fold increased, green = more than 2-fold decreased)