Table S2. Metabolomic data for EV-KO and MITF-KO, with normalized values and ratios

Sample Name	raw TIC data					TIC data normalized to total TIC, with Bergstrom-Mark values					random, as long as 2 values are nonzero				
Sample ID	EVKO-1	EVKO-2	EVKO-3	MITFKO-1	MITFKO-2	MITFKO-3	EVKO-1	EVKO-2	EVKO-3	MITFKO-1	MITFKO-2	MITFKO-3	EVKO-1/MITFKO	EVKO-2/MITFKO	EVKO-3/MITFKO
2-Aminoadipic acid	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Carbamoyl phosp	1042741	693640	642713	136602	153806	208992	161601	108007	100025	21251	23511	32537	7.6011	4.5946	3.0756
3-phosphoglycerate	108727	33246	63664	8272	49051	27868	19797	6080	10715	9037	22268	19199	2.1915	0.2731	0.5582
Citrate	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ribitol-5-acid	21563	12633	9426	4239	13969	7549	2.5305	1.9987	1.5	4507	6164	5288	0.5617	0.3243	0.2838
anthranilate	4399	66590	34751	14661	62967	39872	6488	90202	93286	19875	28969	19193	0.3266	3.1155	4.8626
Asaccho acid	3963365	2291136	715081	96364	164663	123484	267757	310388	277989	93875	75711	98163	3.0388	4.0986	2.8316
dCTP	9971	6772	6793 N/A	1.E+07	8773	4343	9630	8179	10795	3.E+07	3028	9179	0.0032	0.0027	0.0066
2-Ketoglutaramic	1.E+07	1.E+07	1.E+07	31981	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-methylglutaric ac	48361	20671	4264 N/A	1.E+07	22266	13481	47222	28423	6639	1	13162	12.0000	28423	2139.0000	553.0000
Pyrophosphate	308910	83031	79093	39668	63777	65772	266758	112336	126355	42599	207759	49975	126355	49975	0.0000
2-Aminoadipic ac	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CDP-ethanolamin	17020	2637	17871 N/A	25899	8103	18698	3270	3020	2219	6649	1270	4482	0.4.2.8.0.0.2.7	0.2.3.8.0.0.2.7	0.1.6.8.0.0.2.7
ureidoglycolate	21483	36313 N/A	1	1	19928 N/A	1	33963	61927	1	1	26548	6623	17337	0.2.2.1.0.4.0.4	0.1.2.8.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5-Methylcytosine	13864	37992	66031	90272	42705	65577	13268	78191	89129	24006	14366	34279	1.5.5.2.7	0.5.4.4.0.0.2.7	1.5.8.7.0.0.2.7
6-Phosphoglucon	11724	13622 N/A	1	9751	9279	5863	11429	18666	1	10317	4119	6687	19.1.8.6	4.5.3.1.0.0.2.7	0.1.7.9.7.0.0.2.7
N-carbamoyl-L-as	8987	9329 N/A	1	1	12719	6252	8622	12663	1	3771	3232	9733	2.2.8.6	3.5.1.9.7.0.0.2.7	0.1.6.1.7.0.0.2.7
citrulline	242633	627338	483663	332729	267786	1416629	256293	1206699	769661	331703	133977	1573126	769661	331703	0.4.8.1.0.0.2.7
2-Hydroxybutyric	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
gualdine	N/A	8616	8302	12917	13969	11868	7767	13998	13207	5738	6164	5304	12032	4166	0.2.1.1.0.0.2.7
Hydroxyphenylpy	151763	92082	126573	105738	137161	238868	143169	125480	201389	154959	73307	92500	138189	73307	0.5.2.0.0.0.2.7
glucosamine	26083	50728 N/A	1	47509	17969	22329	25688	89384	1	47509	27778	35201	47509	35201	0.5.2.0.0.2.7
Xanthurenic acid	134618	72691	70160	99817	178663	90923	131350	96332	117660	63618	83264	57791	117660	63618	0.8.9.1.2.0.0.2.7
Nicotinamide	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
nicotinamide	200258	211863	137066	207611	204763	208421	200608	400180	230142	366131	160005	176710	230142	160005	0.6.3.8.0.0.2.7
pyruvate	8282	28283	19803	14370	28987	38002	8097	38307	26015	10388	13429	27984	26015	10388	0.6.7.7.9.0.0.2.7
2-Hydroxy-3-oleoy	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
spermidine	80898	38878	34760	22151	130873	28957	79899	50308	60307	26248	61969	33388	60307	33388	0.1.7.9.7.0.0.2.7
ureidine	1867439	10642032	7047866	9036013	2321279	12307388	1926172	14265306	15860622	6542210	1097613	8853710	14265306	6542210	0.4.6.0.0.3.6
2-Hydroxybutyric	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CTP-naga	27014	6138 N/A	1	3227	17283	14882	24556	8520	1	1246	3970	13384	19843	1246	0.6.5.6.0.0.2.7
dihydroorotate	823856	632595	1115023	668962	869167	1136715	854261	1263306	1773138	1043175	663433	811790	1263306	811790	0.4.6.6.2.0.0.2.7
quinolinate	222129	137954	111267	78997	1.E+07	1.E+07	217875	210381	186475	138106	83661	101274	210381	138106	0.6.0.2.7.0.0.2.7
gluconic 1-phosp	136864	154696	187143	130779	238806	188728	127723	206796	267126	139871	107464	139486	206796	139486	0.6.0.3.8.0.0.2.7
2-Hydroxybutyric	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
lactone	1314322.0	1148851.0	882376.0	1079.0000	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000
gluconic-6-phosp	201263	186839	96263	89963	363973	192969	196614	262919	158362	91418	164738	135989	196614	135989	0.6.6.7.0.0.2.7
2-Ketobutyric ac	9.E+06	9842	1.E+07	1	1.E+07	1.E+07	9.E+06	9.E+06	1.E+07	1	1.E+07	1.E+07	9.E+06	1	0.0000
5-aminolevulinic	1.E+07	1.E+07	1.E+07	12716	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	22856	1.E+07	1.E+07	1.E+07	22856	0.0000
adenine	203784	116031	117662	98918	307720	179733	156362	157640	187087	120001	227648	127669	187087	127648	0.8.8.6.0.0.2.7
Nicotinamide ribo	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
N-acetylaspartate	747003	1137571	1070035	1087153	1813867	1437677	729476	1541796	1702460	1134628	2663330	1862043	1541796	1862043	0.8.2.3.0.0.2.7
2-Hydroxybutyric	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1-Methylnicotina	938751	238663	292003	353844	1159221	478550	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000
ethanolamine	N/A	9837	7868	9164	19661	9889	1	13291	12227	9726	8930	4209	12790	8930	0.7.0.8.0.0.8.8
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
nicotinate	87011	37126	81622	36681	23852	69872	88205	61672	135175	80748	13608	46424	66426	80748	0.8.2.2.0.0.2.7
biotin	8472	18045	27865	18860	17402	20323	8372	24484	44394	20079	7896	17375	24484	17375	0.4.8.1.7.0.0.2.7
uridate	N/A	62432	50875	87957	163671	91204	1	84997	80621	20197	69808	38732	80621	38732	0.4.5.7.9.0.0.2.7
p-aminobenzoate	23830	17371	29818	38081	38728	33461	23761	23564	47108	41327	16864	18701	23564	18701	0.4.9.0.0.3.9.8
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
D-ketohexoluron	261664	138874	198664	127607	494549	200710	250003	162560	315897	139499	223007	150422	250003	150422	0.6.6.0.0.2.7
2-Hydroxybenzoic	171269	368680	268572	208800 N/A		530735	167216	456205	429139	219968	1	390701	429139	390701	0.7.7.2.0.0.2.7
2-Hydroxybutyric	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
phenylalanine	138824	127136	152874	128868	98361	154918	135454	77420	189353	128819	37292	96753	135353	128819	0.1.0.5.2.0.0.2.7
2-Hydroxy-2-meth	437372	218516	244875	295669	532624	437332	267760	363966	388741	308879	241709	290980	388741	308879	0.4.2.9.0.0.2.7
2-Isobutylmale	208776	139539	223251	141139	353953	303992	201396	188979	314272	175540	127951	262784	201396	175540	0.9.5.2.0.0.2.7
glycerate	40109	18698	8266	19667	43026	18863	29213	24991	12185	20938	19622	13437	25491	19622	0.2.8.6.1.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citraconic acid	1042852	1338890	1542171	1677969	2383668	1337158	1387156	1458172	1867924	1418453	1038452	1456487	1387156	1418453	0.9.7.8.0.0.2.7
citrulline	328569	208152	290263	337875	870279	472354	318102	262117	472619	321128	364871	309127	472619	321128	0.7.3.5.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dodecanoyl-coA	82017	75851	86799	95595	169842	133456	83379	102857	138775	69998	93553	80231	102857	80231	0.7.7.1.0.0.2.7
alanine	1042268	716598	796543	630351	3029437	1178898	1067543	970364	1272326	439610	1270464	847779	1067543	847779	0.2.5.2.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Methylsuccinic ac	1387412	723486	818016	602661	2553432	1113180	1386216	979385	1351175	682906	1187221	1063016	1351175	1063016	0.9.7.1.0.0.2.7
CDP-choline	25437	6783 N/A	1	5224	23661	27983	24838	9184	1	9819	13867	19960	17316	13867	0.7.9.3.8.0.0.2.7
hexose-phosphat	1232886	837224	759867	648824	2613637	1233897	1213819	1161800	1202219	570127	1064418	892191	1202219	892191	0.5.6.6.0.0.2.7
shunted	76868	8481	19803 N/A		23372	16667	74888	11484	29676		14234	12110	18388	13173	0.7.9.2.8.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	31783	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Methylsuccinic	1387412	1231306	1102374	1108868	983601	1549.0000	1386216	1666.0000	1820.0000	1255.0000	458.0000	1463.0000	1820.0000	1255.0000	0.2.8.2.7.0.0.2.7
spermidine	777763	812715	533852	757888	997714	993084	793390	1162878	805389	803631	267668	702292	805389	702292	0.6.3.9.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
cordiolone 6-phosp	1.E+07	9829.N/A	7.E+07	6214	1.E+07	1.E+07	9.E+07	1.E+07	1.E+07	6.E+07	2.E+07	1.E+07	1.E+07	6.E+07	0.0000
phenylpyruvate	8387	12928 N/A	1	11777	12106	15052	8190	17318	1	12526	6955	10667	12464	10667	0.6.4.2.0.0.2.7
arginine	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
anthranilate	340047	196030	140367	219859	379160	375464	261569	266635	221271	238966	172222	266723	266635	238966	0.2.9.8.0.0.2.7
Dehydroxybutyric	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DIBP	10979	4892	5634	8872	8151	17232	12721	6380	15009	9435	3899	12378	10721	9435	0.8.1.6.2.0.0.2.7
Nb-acetyl-L-lysine	24231 N/A	23517	13550	102157	65974	23601	1	49765	14167	64957	28622	32716	32716	28622	0.5.8.8.0.0.2.7
Creatinine	154716	28071	42968	98963	117387	73969	102292	92969	97435	60097	77763	52123	97435	60097	0.6.0.6.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6-phosphoro-D-glu	18744	22246	10108	19852	19374	35525	18522	27430	24136	21242	38874	21796	24136	21796	0.1.1.1.0.0.2.7
valine	153309	99690	110935	97864	356583	130323	151602	125121	176492	133837	179842	108381	151602	133837	0.1.0.0.0.9.9
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
glycine	15775	8790 N/A	1	8479	22037	9197	9626	9197	1	5178	9899	6201	9464	5178	0.0.8.7.0.0.2.7
Pyroglutamic acid	527971	273630	216604	205200	663420	499732	515441	385906	344544	219240	263997	349786	385906	349786	0.6.0.9.8.0.0.2.7
2-Ketoglutaric a	387676	19897	292099	299897	103276	297000	378568	28079	464646	305371	51928	211649	378568	211649	0.5.9.6.0.0.2.7
2,3-dihydroxybenz	86366	32346	44029	68614	153159	96264	84332	41184	70842	73178	44806	68020	70842	68020	0.9.9.8.1.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
methylsuccinaem	15363	26427	31208	13947	44338	134917	15001	41206	38475	13353	33267	161198	38475	33267	0.3.9.2.6.0.0.2.7
O-acylhomser-S-ph	80028	35386	20908	32444	89853	98443	79143	41182	32626	38502	43769	41981	41182	43769	0.9.4.3.8.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
histidine	2417898	1347277	1273276	1092227	1967275	2700002	2018649	1569.104	2020750	1067995	1999348	2020754	2020750	1067995	0.5.2.6.0.0.2.7
N-Acetylglutamic	9772	12629	7922	11918	17954	38617	9542	17023	12653	12676	8078	14015	12653	12676	0.9.8.9.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
aspartate	275770	206047	268501	233863	154993	325813	263263	261381	275867	246629	319711	279393	261381	279393	0.9.4.3.0.0.2.7
serine	708230	298398	432476	421143	2031411	1013415	692029	541276	739842	447693	921713	723026	692029	723026	1.0.4.0.0.0.2.7
hydroxyproline	80896	97124	41013	69742	212202	153000	81139	75154	69982	49896	96266	73973	75154	73973	1.0.2.6.0.0.2.7
N-acetylglutamate	49872	61081	83227	92420	157705	133803	68032	82785	58745	89754	90562	82795	68754	1.0.8	0.1.8.8.0.9.2
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
m-glycerol-3-phos	275124	136127	76168	133224	663208	284258	268860	160456	226953	142729	213843	203266	164456	203266	0.8.0.1.0.0.2.7
anthylphosphate	78863	20648	33663	44361	66601	33448	19338	27986	91649	47153	31081	16035	27986	31081	1.1.1.0.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
tartrate	37720	32437	32310	37862	19821	19821	35821	42863	38271	51928	8349	8689	42863	51928	0.8.2.5.0.0.2.7
pulmo	26121	13214	10861	7614	42769	30132	23506	10928	17485	8247	23371	21978	17485	23371	1.7.6.2.0.0.2.7
hydroxybenzylpy	48504	30722	9439	35495	139452	49994	42896	21895	13421	32042	61913	48987	21895	48987	0.7.3.8.0.0.2.7
2,3-Dihydroxybenz	8872 N/A	1	7777	11142	9975	10718	8771	1	12273	13648	4369	11280	9543	13481	1.3.8.2.0.0.2.7
Uracil	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Malate	3.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000
Malonic acid	832057	639680	695021	806765	2439876	1487038	781218	866992	839687	911101	1156955	1362229	866992	911101	0.9.5.1.0.0.2.7
Uracil	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Kynurenic acid	31276	16439	30878	65832	47871	94782	37882	50898	46439	73074	60492	72957	42664	60898	0.6.9.8.0.0.2.7
2-beta-isoacetyla	826455	659357	614268	627556	2818487	1430735	804018	549397	677247	687087	1278920	1039669	806318	1039669	1.3.8.7.0.0.2.7
leucine-isoleucine	1293620	1518226	8766215	8279765	3663177	1993625	1259461	1267850	10766250	10146260	1697960	1518226	10766250	10146260	1.0.6.0.0.0.2.7
pyridoxine	634764	249398	379824	638021	1778762	923977	619797	499380	558621	870549	807579	898153	558621	870549	0.7.3.8.0.6.9
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
allantoin	22224	2141	23343	27991	63840	63849	22223	26018	31138	20175	22406	33133	22406	33133	0.9.9.0.0.0.2.7
Guanidoacetic ac	77862	52337	45798	90341	187649	148618	76117	73920	72859	96072	85142	103993	72859	96072	1.3.2.9.9.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dehydroalanine	32079	18395	3264	27155	43927	26997	31325	13933	14738	28635	19868	18208	14738	19868	1.3.3.4.0.0.2.7
serotonine	118293	62318	83273	87867	377075	196834	115465	86439	150699	93081	171990	136143	150699	136143	1.6.4.8.9.0.9.7
hydroxyacetic acid	55755	37630	37513	28239	163423	56392	51047	43393	49588	53579	72008	67422	49588	67422	0.9.3.8.0.0.2.7
2-Aminoacetoacet	38625	49334	30648	37288	187800	110163	38416	61387	68077	38663	87664	82407	68416	82407	1.4.1.0.0.0.2.7
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
glycolate	11842	9024	18814	16464	14958	20477	11563	12235	20435	17008	7664	18632	12235	17008	1.4.9.9.7.1.9
Phenylacetic acid	32319	23728	27861	32241	164999	85976	31987	32161	44516	34289	87653	88002	32161	88002	0.3.6.7.6.1.2
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dexoyribose phos	7969	18647	6719	8020	52150	22167	7282	20892	10777	8630	23639	19420	10777	19420	1.8.0.0.0.0.2.7
lysozine	836362	412782	450522	477166	2633812	1457842	816648	599460	718763	507628	1140218	1058163	718763	1058163	1.4.8
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CMP-CDP	84764	27136	18926	20322	38358	36267	83005	36752	29679	21292	83277	56389	36752	56389	1.4.5.0.0.0.2.7
Aminoadipic acid	84822	36035	40765	94072	273877	128843	82999	48940	63802	100038	123868	91874	64802	100038	1.0.4.2.7.2.2
glutamine	8698805	8166275	6291921	9818487	4704567	10247777	8452420	8999.000	8418614	10310333	3154777	11359.000	8418614	10310333	1.3.8.6.0.0.2.7
taurine	8775293	6331238	3806380	8135402	35489428	18403649	8598878	6978151	8875357	8613137	10107165	13320329	8598878	13320329	1.3.8.6.1.7.6
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
fructose	2038561	1239798	1197968	1395024	3663208	2024756	1951350	1662350	1931000	1203425	2877166	1842352	1931000	1842352	1.6.0.5.1.0.9
Hydroxyacepyron	28607	27439	48638	77229	127922	82763	27550	37108	77695	82233	68042	98107	37108	98107	1.9.6.0.9.0.9
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UDP-D-glucose	27926	31176	33013	35021	164879	95357	26967	17756	32617	36809	59673	55187	32617	55187	1.6.9.0.0.0.2.7
D-aceto-L-serine	5201	9937	3393	6967	23989 N/A		5079	8007	3245	4335	11335		5393	8007	0.6.5.7.0.0.2.7
NAD+_negs	2638625	1239011	1175535	1621375	8638647	4315239	2553585	1622.000	1862.000	2033.000	3628294	1962.000	2553585	3628294	1.4.2.0.0.0.2.7
xanthosine	6456	8143	13979	17623	49163	22703	6348	11984	33907	18936	20957	16270	11984	18936	1.6.2.0.6.0.1.0
2-Ketoglutaric a	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	1.E+07	0.0000	0.0000	0.0000	0.0000	0.0000