

Total Iron Count (another option for normalization)	TIC	Ozd-Muk-20190207-01.raw	Ozd-Muk-20190207-02.raw	Ozd-Muk-20190207-03.raw	Ozd-Muk-20190207-04.raw	Ozd-Muk-20190207-05.raw	Ozd-Muk-20190207-06.raw	Ozd-Muk-20190207-07.raw	Ozd-Muk-20190207-08.raw
		WT 1	WT 2	WT 3	WT 4	TDP-43-1	TDP-43-2	TDP-43-3	TDP-43-4
KEGG ID									
2-HG	C02630	233,338,781	265,339,744	251,461,784	252,495,520	230,836,168	265,801,089	297,563,156	257,662,936
3-phospho-serine	C01005	15,029	88,400	73,320	50,071	79,189	108,074	104,553	298,167
5-methylcytosine	C02376	198,089	168,755	240,618	261,241	102,704	72,453	175,162	293,213
6-O-methylguanine	n/a	0	0	0	0	0	0	0	0
6-phosphogluconic acid	C00345	512,411	857,435	708,932	626,506	378,192	329,319	908,180	2,288,451
7-methylguanine	C02242	423,864	545,983	490,371	441,151	341,059	504,734	583,955	1,017,938
acetoacetic acid	C00164	0	1,735,956	1,870,857	1,953,313	1,527,718	1,006,422	0	0
acetylcholine+	C01996	289,275,123	232,697,712	275,841,093	295,380,184	323,835,041	328,311,539	354,141,497	369,806,344
aconitic acid	C00417-C02341	1,736,130	2,241,484	2,300,695	0	16,090,504	26,938,254	29,959,008	33,356,585
adenine	C00147	104,691,720	152,149,296	159,164,754	154,795,702	67,522,308	134,106,223	110,346,876	203,827,297
adenosine	C00212	992,415,441	1,124,785,734	1,125,453,604	1,260,125,577	798,932,402	1,020,875,733	1,311,831,642	1,337,464,830
adenylosuccinic acid	C03794	39,818	19,946	61,756	32,916	49,755	14,604	32,730	14,920
AICA ribonucleotide	C04677	0	0	0	0	0	0	0	0
a-KG	C00026	28,101,464	33,401,504	33,955,774	35,676,423	34,198,407	39,063,463	45,885,122	56,207,732
allantoin	C01551	3,705,295	6,577,713	5,735,487	4,366,483	5,851,460	6,234,188	10,053,635	14,729,889
arginine	C02385	762,022,977	761,616,718	796,023,072	799,412,500	471,315,088	831,196,675	927,391,306	992,455,004
asparagine	C16438	8,010,935	12,265,908	12,623,470	10,257,601	9,436,676	12,455,231	15,676,921	13,731,604
aspartic acid	C16433	366,377,134	503,623,316	505,995,339	425,249,904	494,060,036	452,376,861	522,235,570	454,142,285
ATP / dGTP	C00002 / C00286	3,652,196	3,768,264	2,777,869	2,840,176	2,670,874	2,586,805	3,070,322	6,370,153
betaine	C00719	600,124,290	681,036,103	700,241,088	669,998,493	670,427,247	859,095,592	962,599,569	825,980,326
carnitine+	C00487	1,967,138,524	2,388,339,546	2,257,498,389	1,976,161,901	1,790,668,487	2,758,203,294	2,482,327,396	2,994,299,444
CDP	C00112	227,148	121,272	102,819	54,420	122,791	0	66,784	44,392
choline+	C00114	3,138,556,733	4,171,365,520	4,541,506,659	4,114,004,935	3,768,779,936	4,310,236,285	5,037,893,913	4,709,671,026
citraconic acid	C02226	0	0	0	0	0	0	0	0
citrate / citrate(iso)	C00158 / C00311	663,758,375	839,603,834	927,206,912	875,909,182	933,029,506	985,983,705	1,171,294,715	1,361,714,533
citulline	C00327	8,081,443	9,540,408	10,412,592	8,061,704	6,905,605	8,572,293	8,964,303	11,122,377
CMP	C00055	4,073,333	3,175,143	3,412,307	2,771,984	3,724,520	1,850,820	4,396,725	2,223,002
creatine	C00300	13,447,444,932	15,795,616,284	15,129,010,813	15,055,397,915	13,128,616,848	14,770,073,842	15,854,576,512	17,783,164,417
Creatinine	C00791	89,435,655	123,412,056	109,558,458	94,083,401	42,823,184	121,289,550	154,215,440	182,075,803
CTP	C00063	0	0	0	0	0	0	0	9,884
cystathionine	C00542	1,875,986	1,333,870	1,428,253	1,865,283	940,383	2,362,384	2,503,396	9,387,183
cysteine	C00736-C00097	2,439,433	1,903,343	3,043,142	4,006,167	2,360,352	2,083,096	3,959,283	2,924,349
cytine	C01420	571,459	281,102	518,626	587,694	390,378	235,526	752,245	331,238
cytidine	C00475	9,142,418	15,990,816	16,812,927	14,723,832	7,460,931	13,539,232	14,073,589	27,695,508
cytosine	C00380	528,976	660,425	751,427	582,589	512,493	691,669	813,473	1,227,657
dADP	C00206	0	0	0	0	0	0	0	0
dAMP	C00360	515,287	166,546	374,940	674,087	807,870	843,673	522,384	234,044
D-arabinono-1,4-lactone	C00652	105,913,981	114,015,451	124,381,975	106,897,802	54,916,818	63,265,218	73,591,195	101,436,795
dATP	C00131	0	0	0	0	0	0	0	0
dCMP	C00239	0	0	0	0	0	0	0	0
dCTP	C00458	0	0	0	0	0	0	0	0
deoxyguanosine	C00330	992,448,792	1,124,785,734	1,125,453,604	1,260,253,890	799,025,488	1,020,895,363	1,312,271,414	1,336,877,616
deoxyuridine	C00526	1,143,121	1,413,785	2,744,112	1,566,750	907,902	1,104,869	1,859,937	7,390,189
D-glucosamine-6-phosphate	C00352	188,286	26,034	57,160	0	39,267	27,548	21,250	15,590
dihydroorotate	C00337	26,426	0	26,657	25,290	0	0	28,633	0
DL-DOPA	C00355	46,526	18,990	0	30,143	114,802	97,439	107,549	22,698
D-sedoheptulose-7-phosphate	C05382	963,746	1,473,730	1,474,940	1,341,985	1,084,859	1,506,380	1,693,140	1,647,419
dTMP	C00364	0	0	0	0	0	0	0	0
dTTP	C00459	0	0	0	0	0	0	0	0
dUMP	C00365	0	0	0	0	0	0	0	0
epinephrine	C00788	22,470	11,208	37,825	32,796	32,614	17,236	12,135	0
FAD	C00016	0	78,034	58,322	0	74,175	146,230	108,897	122,305
FMN	C00061	0	0	0	0	0	0	0	0
fumaric acid	C00122	85,907,695	96,537,411	98,654,595	129,170,802	103,062,224	97,023,778	161,443,425	124,825,871
GABA	C00334	1,363,841,197	1,546,970,627	1,556,689,559	1,502,112,809	1,338,257,441	1,667,460,177	1,591,375,639	2,054,661,149
GDP	C00035	6,852,934	8,255,043	7,477,870	8,870,204	8,649,455	8,505,338	12,038,876	12,950,516
glucano-lactone	C00198	2,056,628	2,513,168	2,512,305	1,801,774	679,362	1,061,552	1,604,443	1,402,437
glutamine	C00303	1,633,413,569	1,951,382,025	2,002,231,354	1,855,567,842	1,690,279,279	2,016,100,037	2,466,110,458	5,601,767,768
glutaminic acid	C00302	1,827,527,809	2,331,782,146	2,293,498,839	2,147,148,210	1,844,285,539	2,160,746,918	2,512,856,981	2,781,540,499
glutathione	C00051	239,488,167	321,450,379	320,557,628	314,281,824	228,175,887	304,122,948	342,906,189	428,762,181
glutathione disulfide	C00127	7,225,045	10,924,470	10,045,570	7,001,304	10,792,385	16,827,797	18,351,895	20,873,638
glyceric acid	C00258	8,202,965	10,973,816	9,346,125	8,446,219	6,626,909	7,235,080	8,784,236	8,791,267
glycine	C00037	15,491,759	19,640,216	20,568,309	16,238,240	19,051,738	23,373,022	33,752,411	28,449,726
GMP	C00144	36,006,512	44,033,239	46,833,505	39,092,226	35,225,021	40,650,320	47,376,047	49,522,059
GTP	C00044	820,048	761,809	878,095	927,090	841,001	859,536	860,393	1,525,558
guanine	C00242	265,581	489,519	469,447	309,859	624,986	749,374	872,101	981,257
guanosine	C00387	7,596,991	9,431,155	10,460,775	11,523,086	4,107,836	8,947,820	7,776,504	15,891,148
histamine	C00388	3,950,619	3,864,226	3,490,019	4,057,121	3,331,630	3,286,096	3,809,032	9,127,603
histidine	C00768	447,693,671	524,541,240	559,897,674	557,048,235	406,227,182	482,285,591	596,402,001	886,635,570
homocysteine	C05330	45,977	37,519	0	0	0	103,790	28,388	364,176
hydroxyphenyllactic acid	C03672	15,175,351	18,977,340	19,125,536	17,798,966	12,220,058	14,011,719	11,764,725	16,100,138
hypoxanthine	C00262	90,774,843	121,234,392	148,179,816	115,559,035	150,934,623	193,117,196	180,587,476	252,634,853
IDP	C00104	0	0	0	0	0	0	0	0
IMP	C00130	28,852,690	19,008,037	21,872,390	16,545,855	19,488,222	8,866,993	15,757,709	14,740,789
inosine	C00294	71,620,648	78,873,580	105,965,339	85,564,073	57,637,121	91,180,156	80,542,977	158,721,315
kynurenine	C01718	55,300	66,031	89,240	107,019	53,478	157,041	130,751	2,202,793
lactic acid	C01432	3,957,481,241	4,411,176,425	4,462,737,208	4,271,741,127	2,988,261,810	4,563,084,108	5,152,564,524	5,884,212,838
L-arginino-succinate	C03406	1,579,831	2,196,708	2,299,970	2,270,899	1,717,292	1,983,410	2,834,528	3,017,605
levulinic acid	n/a	0	0	1,566,139	904,323	872,914	3,414,441	0	1,702,789
L-NMMA	C03884	4,629,646	4,397,463	4,621,045	4,536,677	3,073,488	4,011,370	7,399,016	6,353,360
lysine	C00047/C00739	101,130,992	102,918,446	107,093,456	89,251,546	85,287,528	108,435,452	154,196,485	144,324,520
maleic acid	C01384	0	0	0	1,525,338	0	0	0	0
malic acid	C00711	1,009,279	11,705,340	13,130,203	14,544,791	13,061,583	12,346,241	14,697,945	17,903,667
methionine	C00073	35,657,506	43,712,720	46,831,093	40,581,132	33,253,560	43,078,961	52,965,012	53,502,831
methylglyoxal	C00546	262,884	275,072	214,675	345,795	77,655	124,486	186,502	213,975
mevalonic acid	C00418	502,693	780,677	595,215	883,762	487,127	658,603	604,832	681,098
N-acetylspartic acid	C01042	9,376,816,824	10,455,225,059	10,608,157,311	9,745,007,744	8,432,551,632	9,640,666,620	10,967,827,441	12,419,167,663

N-acetylaspartylglutamic acid	C12270	2,559,805	3,999,847	4,205,742	3,045,890	1,962,251	2,235,445	2,375,569	5,200,647
N-acetyl-DL-alanine	n/a	4,034,307	5,235,471	5,271,576	5,544,716	3,352,692	4,772,855	4,727,454	6,446,052
NAD+	C00003	3,168,963	4,810,802	4,354,923	4,012,039	2,804,783	4,640,501	3,256,800	5,378,023
NADH	C00004	54,042	353,948	67,254	115,307	558,486	652,423	816,487	1,472,849
NADP+	C00006	539,227	694,326	468,541	621,283	499,468	616,298	723,903	782,197
NADPH	C00005	0	48,727	62,286	70,996	77,279	37,576	17,052	0
N-carbamoyl-L-aspartate	C00438	0	0	0	0	0	0	0	0
nicotinamide	C00153	291,498,477	321,677,540	359,812,861	320,817,228	329,115,310	332,960,403	488,201,581	450,000,632
N-methyltryptamine	C06213	6,217	6,904	7,365	14,619	11,572	8,780	0	17,573
norepinephrine	C00547	93,681	115,308	163,488	112,133	118,619	92,925	36,698	175,863
ornithine	C01602	4,994,856	8,267,196	8,971,962	6,012,984	4,138,248	6,254,713	6,002,810	6,057,181
orotic acid	C00295	2,861,654	3,502,861	3,487,754	3,792,731	2,373,319	3,291,925	3,205,375	3,024,776
orotidylic acid	C01103	0	0	0	0	0	0	0	0
oxalacetic acid	C00036	139,186	126,127	101,954	78,926	149,756	285,787	115,965	0
pantothenic acid	C00864	53,393,629	66,355,345	65,885,127	55,048,694	73,273,236	85,198,895	83,310,670	214,224,065
phenethylamine	C05332	379,396	450,463	451,119	395,152	401,178	430,278	470,857	430,360
phenylalanine	C02057	49,990,483	69,161,322	74,909,280	65,532,125	51,148,271	76,618,846	89,549,653	208,630,017
phosphocreatine	C02305	579,884	647,778	607,525	472,663	942,220	726,778	480,346	724,020
phosphoenolpyruvate	C00074	57,087	1,116,434	854,044	297,910	2,606,547	3,477,722	5,992,997	13,782,009
phosphorylcholine+	C00588	295,268,296	460,821,113	463,299,857	417,720,937	370,723,689	555,882,039	856,753,358	957,869,704
proline	C16435	119,281,141	161,303,433	159,997,543	132,959,750	94,079,947	132,237,987	158,336,458	264,889,816
PRPP	C00119	0	0	0	0	0	0	0	0
putrescine	C00134	96,407	29,473	88,728	20,483	85,327	195,975	18,626	56,778
pyruvic acid	C00022	28,202,922	22,161,757	16,837,752	25,994,696	7,413,031	12,269,335	16,392,178	25,300,866
S-adenosyl-L-homocysteine	C00021	236,995	481,490	470,563	360,824	219,725	695,482	419,951	1,318,196
S-adenosyl-L-methionine+	C00019	0	187,129	229,507	339,872	214,550	178,148	392,238	230,936
serine	C00716	69,917,271	80,914,522	86,860,369	80,132,323	92,850,197	102,431,269	115,571,550	97,559,642
serotonin	C00780	73,031	94,425	44,367	43,799	70,350	24,880	24,623	39,563
spermidine	C00315	102,508,961	93,394,055	115,278,143	159,406,986	103,389,583	98,559,813	91,751,751	85,011,415
spermine	C00750	19,339,643	15,085,037	21,045,199	14,978,731	22,931,370	19,536,470	27,647,714	19,933,526
succinic acid	C00042	1,289,215,393	1,937,908,967	1,837,071,583	1,386,643,010	1,294,558,225	2,072,764,686	1,765,155,125	2,959,824,088
thiamine+	C00378	12,298,582	14,235,088	15,393,670	12,610,923	12,060,207	16,239,474	18,914,866	17,606,317
thymidine	C00214	944,639	916,254	1,910,454	1,172,623	694,026	987,815	1,377,739	5,515,359
thymine	C00178	704,449	800,739	1,383,199	767,767	637,758	725,637	1,011,800	3,329,126
tryptamine	C00398	10,260	21,905	11,938	12,986	35,252	27,884	21,484	34,875
tryptophan	C00806	10,341,372	15,910,967	16,057,172	14,842,478	8,947,045	15,844,346	22,069,618	46,459,970
tyramine	C00483	575,992	551,200	574,717	304,227	999,017	405,305	574,040	316,755
tyrosine	C01536	28,878,040	38,855,524	38,771,718	34,511,169	28,369,355	37,622,702	31,227,728	46,060,699
UDP	C00015	419,847	553,580	528,919	303,516	582,661	464,010	662,434	1,052,398
UDP-D-glucose	C00029	1,270,312	1,990,118	1,763,501	1,530,374	1,022,994	1,711,995	1,936,192	1,814,802
UMP	C00105	3,486,271	3,135,127	3,269,653	2,635,173	3,651,848	2,392,191	4,393,651	2,547,084
uracil	C00106	24,178,266	38,620,665	42,453,033	35,097,557	23,371,051	42,668,665	35,265,332	73,441,253
uric acid	C00366	1,506,946	2,252,259	2,464,075	1,676,617	2,241,740	3,300,160	3,460,686	6,580,823
uridine	C00299	22,964,308	34,608,322	37,530,621	32,052,382	20,401,569	38,632,363	38,619,704	63,382,303
UTP	C00075	15,980	18,114	0	0	0	0	0	0
valine	C16436	13,412,245	16,488,450	12,761,287	9,898,551	7,286,406	14,321,239	20,763,858	24,118,125
xanthine	C00385	41,260,080	50,821,648	49,220,920	55,564,204	61,167,998	68,555,454	75,244,405	65,543,503
XMP	C00655	0	0	34,361	18,427	0	6,692	0	74,811