Pig				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Inoculum	**HMDB**	**PubChem**	**KEGG**	**PBS**	**PBS**	**PBS**	**PBS**	**PBS**	**PBS**	**LPS**	**LPS**	**LPS**	**LPS**	**LPS**	**LPS**	**Bhyo**	**Bhyo**	**Bhyo**	**Bhyo**	**Bhyo**	**Bhyo**	**PBS**	**PBS**	**PBS**	**PBS**	**PBS**	**PBS**	**LPS**	**LPS**	**LPS**	**LPS**	**LPS**	**LPS**	**Bhyo**	**Bhyo**	**Bhyo**
Tetradecanoylcarnitine	HMDB05066	-	-	124110.92	111908.463	178716.071	107246.095	179458.476	124403.76	68012.5801	107811.215	106172.89	170754.45	97553.1818	151474.925	51364.5072	109402.746	43089.0489	138820.435	113625.241	167413.862	258246.535	682805.431	299326.669	308648.006	307033.158	792971.595	415140.622	316783.586	77861.5112	381122.411	250862.55	537598.223	308674.286	280898.641	713776.376
L-Palmitoylcarnitine	-	-	C02990	620995.627	627340.883	647334.995	407221.514	422033.552	408623.809	227675.107	406395.817	354832.08	425152.837	303660.608	1553897.5	165480.66	349418.868	324783.188	486895.259	386513.194	488179.76	1392277.22	5294582.12	2045968.91	5630989.99	1598578.94	5141299.18	1717360.4	3567532.21	2873763.53	1722332.95	1784522.08	5305859.52	2620729.72	2002451.12	2769379.32
Stearoylcarnitine	HMDB00848		-	994157.977	1130813.69	1141148.53	1007766.96	957784.792	902601.32	710884.637	894543.578	402739.707	530738.814	787006.836	2066438.13	348826.452	467997.411	895725.416	757081.224	877266.105	1014931.39	1714515.27	6734643.58	2037882.74	10654870.5	1512762.22	4357054.38	2977567.36	6774178.14	6370947.03	1730738.25	1767348.9	6810221.61	4434202.53	1735020.75	3495756.11
Oleoylcarnitine	HMDB05065	-	-	738906.297	755563.322	832381.259	468250.329	666243.255	779080.377	471124.133	399182.081	327233.033	317587.243	469603.786	493796.779	217447.064	241946.934	584287.666	476354.951	476555.49	518145.03	872592.742	3956343.62	1291144.56	3330972.95	1139467.8	3525312.78	3138823.78	5654741.51	1233229.5	1332866.73	1119549.76	4546599.43	3629547	1342904.52	3400447.18
O-Acetylcarnitine	-	-	C02571	34527497.7	63173882.2	34510499.5	22712703.6	39833321.1	37957159.8	22373888.6	39142035.5	67327970.2	36945834.5	39139847.8	40167513.4	28915472.4	21905747.4	30500973.3	26744949.8	36346415.9	22518618	59775625.3	91276900.6	96962695.1	110083661	111494439	71170465.4	123767228	140976010	37424110.8	78261717.8	109562244	98106217.3	67616091.3	88668554.5	154207485
2-Phospho-D-glycerate/3-Phosp	-	-	C00631	4555500.17	3213635.14	6107385.02	6683784.35	6085776.9	6207373.26	3407861.52	6960937.57	5517818.42	6680387.11	4410933.94	9319081.93	6445494.99	6591925.23	6248091.21	6854307.62	4743500.2	4849368.2	8266008.14	9747217.04	8002259.82	12079421.9	7913694.36	7886045.07	9733051.46	9468210.66	10682164.5	8389031.66	10922264.5	9182557.97	7396114.4	7844213.91	7212076.04
(R)-3-Hydroxybutanoic acid	-	-	C01089	59810.752	140255.665	106137.721	66650.774	71450.5227	80250.8852	93604.0438	115391.137	125130.471	105098.81	95204.9262	174587.894	115747.898	105055.11	99196.1276	78219.8506	98506.855	115750.916	85568.9787	108126.366	105766.885	197742.391	104720.455	100867.83	85982.6877	122734.706	120972.652	92716.3514	94784.401	117745.133	85700.0415	148347.366	103788.253
O-Propanoylcarnitine	HMDB00824	-	C03017	5781580.65	10717617.5	7667552.44	7372231.49	11005423.5	13318844.2	9375756.55	7933427.91	7825647.64	7251979.58	6215749.48	5578627.31	7175794.52	5875115.83	9579724.67	6437647.11	8186672.47	5566734.43	14683741.3	12534772.4	17019940.4	12892959.2	18284650.1	11471414.1	22874432.7	19890037.4	4649936.8	8584364.18	11182102.3	8011471.37	12231774.7	14034775.1	24003940.7
O-Butanoylcarnitine	HMDB02013	-	C02862	1451295.73	3573063.61	1694076.2	1376632.66	1905314.46	2279093.39	1331540	2015905.26	3041401.3	1495848.75	1587304.14	1615082.18	1674491.49	1223091.65	2008263.38	1742025.43	1934850.94	1340353.99	1921767.76	3181840.41	2946217.58	2949746.16	3285838.26	1901746.01	3414420.67	3739765.76	1083938.89	2059912.03	3037726.43	3355195.54	2194021.52	2555388.44	3332624.35
5-Methyltetrahydrofolic acid	HMDB01396	439234	C00440	631.406789	0	831.110508	806.797988	477.116019	2614.1209	0	2256.83045	3891.24646	1769.64068	627.309988	744.564507	0	0	620.877293	0	526.902806	0	0	0	0	0	0	0	1399.71266	0	0	571.464524	2034.78486	603.106077	0	0	0
L-Hexanoylcarnitine	HMDB00756	-	-	149845.389	300058.488	140219.339	110889.939	151460.234	186467.047	115981.668	164844.603	222415.978	154821.907	131968.662	133201.333	134164.702	124976.811	162493.905	142537.46	138460.69	110903.116	281196.869	438585.583	448052.225	427215.504	387322.876	316303.171	501710.274	495266.295	178174.308	433245.769	491688.356	477681.603	391283.12	465228.058	589550.068
6-Phospho-D-gluconate	-	-	C00345	13246.139	12890.3782	7286.06605	11490.7297	15211.087	31125.7943	4928.94544	18067.2962	27358.0945	12796.9226	6898.81286	76750.8886	18627.6324	30271.9569	21072.2728	12488.9689	23012.5499	14743.415	21572.9617	30779.5958	21455.3214	49603.3953	16726.2684	30218.7509	29167.7644	36399.8236	65061.4584	18045.443	30726.6446	24224.8186	16203.5566	23632.0778	8947.35873
2-Ketoglutaric acid	-	-	C00026	655819.566	876007.818	787427.229	841452.603	936418.332	1186685.4	700250.386	1406207.75	1364760.36	886384.511	698049.015	1420794.22	803122.003	1055338.42	980860.923	933810.006	620056.064	1202126.11	932066.107	1280895.88	1271218.29	1129613.23	1163222.81	844526.508	786356.018	951165.363	1303622.84	838772.668	1166742.82	1032823.35	1015071.95	1101839.35	1130701.22
Acetoacetic acid	HMDB00060	96	C00164	16448.2656	32600.0688	10593.5389	25942.876	3982.15284	23593.0262	19589.947	10926.8344	49865.4835	16248.5272	51990.5846	174382.618	16399.6798	14924.8729	48731.9769	0	71019.3327	31168.0505	8368.11185	10832.9491	100831.382	17648.5933	7034.47388	33613.4051	118713.205	43890.0445	21627.8679	5509.94533	104324.012	21284.1665	11855.0003	12612.0279	18090.8737
Acetyl coenzyme A	-	-	C00024	3791.33687	1014.00268	1076.7423	1732.29557	3378.78904	0	4140.871	1833.40036	0	2048.17392	1799.86693	42904.1938	1234.22705	12491.643	4209.69868	0	3103.10683	2212.78727	17947.9225	22264.1309	23108.0706	57215.5061	23269.2862	27984.9656	17646.7234	23138.4828	24177.8417	20633.5564	32905.4337	38753.3594	22705.5196	24147.2809	11882.9299
Adenine	HMDB00034	190	C00147	68231302.8	90583159.4	83406912	89742811.6	51398042.4	65124391.6	70824122.9	53972272.7	82182289.1	93606345.4	65363675.7	55243296.5	59603128.4	67076023	50626015.1	57398083.6	52263331.9	60997117.7	60770076.6	59622394.4	61287700.3	31710407.1	66280082.3	63234091.3	50956583.7	68406850.5	17772060.8	58925182.7	50216426.7	48799520.9	47486764.5	45487675.6	61365411.6
Adenosine	HMDB00050	60961	C00212	2249606.35	11489701.2	3460562.33	6711600.63	3664726.78	18618746.8	11731353.2	9857648.33	17285009.3	6347433.41	4711840.74	9610439.85	3826506.27	5763849.3	6866702.16	5197141.93	4156280.2	7649154.8	4003260.98	5762771.33	4568474.02	15764226.9	8497643.86	6723998.08	12846580	12222282.3	15556951.4	5916483.91	12484168.6	5088950.72	6884182.74	9972903.25	21134764.5
L-Alanine	HMDB00161	5950	C00041	90150239.1	96896642.8	92165761.7	84091608.2	89139825.1	88695942.5	90248241.6	91274745.8	86081237.6	96768256.1	88002702.1	84983584.8	82476971.6	83322929.8	82375300.9	77999622.3	85558207.4	88616786.8	89199854.9	90637864.5	90545145.2	99461636.4	92524633.9	86378044.9	88524203.1	89722984.9	86096377.4	88530417	87317432.2	87047531.7	85465565.2	86663158.4	95869512.5
Adenosine monophosphate	HMDB00045	6083	C00020	330448.651	1490647.37	598506.643	505541.863	505352.751	490521.612	237665.555	505523.352	502550.854	381330.967	249341.164	1281147.99	242362.703	427309.428	317169.906	321750.014	528978.66	212147.742	291445.447	408217.225	447984.219	2832209.76	366470.373	468088.146	1749649.16	2394393.48	1943488.5	301605.245	393884.734	383674.127	572814.846	360821.395	1603864.19
L-Arginine	HMDB00517	6322	C00062	75496672.6	85794182.3	86970580.9	96142253.1	86157704.9	93833612.4	77445944.3	94990270.1	117045604	115960759	75763087.5	98899419.5	69561843.1	65152574.8	67697243.3	61910067.9	76301542.4	74035272.8	63257337.3	68009850.4	63004510.2	77090478.7	69180357.4	66182296.2	67504990.3	89158780.3	57116265.1	63917479.5	71208453.4	67544313.9	46735075.6	47286629.3	72215049.7
L-Asparagine	HMDB00168	6267	C00152	5687532.17	6054297.21	5464821.75	5356676.32	5702453.22	5483723.24	5206318.79	5802729.92	6126041.63	5819824.79	4958446.57	10190574.1	5377526.11	6002128.62	5416144.33	5243316.8	7099285.67	6296397.28	4109212.77	4137093.58	3964437.23	5546160.15	4121937.02	3745126.93	3400724.49	4305544.29	6162862.3	3741103.18	3933780.3	3144376.55	3976741.88	4053230.21	4168284.82
L-Aspartic acid	HMDB00191	5960	C00049	22658768.1	20191252.9	21978046.7	24403189.2	22159207.8	23832665	12127121.2	27497539.5	28172103.3	26455174.2	21687823.1	36529617.3	20412094.6	21358465	21787102.8	21170617.5	23144275.2	17523893.4	35309318.3	31180912.6	31569350.3	41900142.7	31331415	28788656.5	39089719.5	36893544.6	42752413	34125749.5	29865666	26952166.7	33744667.1	32282689.3	40016063.4
beta-Alanine	-	-	-	9371017.17	11620090.6	9093703.95	6965134.1	8912986.09	9560730.92	8627560.54	9588644.75	11073136.7	10411002.3	9397050.2	12889007.3	7423988.29	8148306.39	7734887.04	7571261.65	8557808.98	8636836.93	8456452.79	8409819.35	9598366.63	10983384.9	9292870.51	7069524.44	10294519	9769234.84	8988454.72	7760272.61	9330692.15	7500777.42	7782142.71	7769422.66	10019884.9
Betaine	HMDB00043	247	C00719	222238472	383178710	218002920	154389763	202152258	237504713	190259134	222133241	310366391	279672772	225634078	168257619	175454417	165908980	192582955	160606648	230342287	174816162	103949655	91559310	116565139	73840897.5	112062028	72845042.4	117919425	108157860	38255358.7	82504761.3	102370088	71540131.7	66878113	72331878.7	125188969
Biotin	HMDB00030	171548	C00120	20625.9446	34724.1064	35772.1573	28871.6945	27490.1137	32088.9752	70787.7973	30114.2754	35001.8097	33820.0052	25798.8189	40527.7124	26824.8756	34404.9201	27389.0533	19423.3482	33551.3918	30870.5836	28853.5693	30979.5292	22344.8056	32381.4353	23081.0839	27326.9352	25654.072	31295.6976	40592.1297	30495.1016	37155.93	31320.1501	29503.3485	32567.7428	34600.1433
Cyclic AMP	HMDB00058	6076	C00575	7069.57934	15609.9492	7605.7145	5771.97221	5897.62027	10348.3947	3729.29454	8252.44041	12290.8949	7764.88651	4039.97658	45738.5394	2876.1972	18271.6415	12843.1707	2772.4583	10425.5767	6046.21535	4551.23417	17903.0236	9775.50784	37908.8421	6225.10878	19485.1014	12825.1204	8446.56625	38129.1907	1801.02474	25397.9306	18950.4743	10611.0881	17832.3559	10718.767
Choline	HMDB00097	305	C00114	596244194	883679057	615609550	473277214	547163176	656431768	703451361	671347889	1062798597	875925649	689600483	1304180578	772484342	743693431	721062300	642005797	883687849	939467515	526474727	586987708	538846354	1125562363	579006749	468564948	827595040	1072443307	1013290727	550151003	775534033	552168989	551006923	556705075	1204664564
cis-Aconitic acid	HMDB00072	643757	C00417	158060.325	130451.908	306968.408	338725.417	578161.628	314233.609	275401.914	472298.399	360040.58	327147.453	199179.618	1690746.15	243218.788	856076.571	417600.239	478456.806	353373.452	776436.027	480494.393	731445.781	575858.464	1267320.13	460283.52	818181.381	311915.029	446677.455	1827136.3	345045.218	579234.993	723712.151	721876.013	551245.876	451531.786
Citric acid/isocitric acid	HMDB00094	311	C00158	4030878.08	6189227.95	9413293.74	8988590.04	15326196.5	13819465.8	7127172.2	10643811.7	19069755.3	13143602.3	5796659.22	49313693.5	6753244.26	25000815.9	10947274.9	10853035	9837709.22	17381695.6	13206735.9	15734763	16501099.2	42937508.2	20631337.2	23519321.5	11498792.9	15778653.6	39031372.4	14489353.4	28663748.6	19956493.3	11860788	21130607.8	19500560.2
Citrulline	HMDB00904	9750	C00327	9267298.36	11631532.3	8377664.24	6252798.78	7366430.55	9372727.1	10072984.4	7666603.3	12109109.9	10674792.8	8607712.77	11707527.7	15639380.8	15340157	12492091.7	12559196.5	15649293.7	21205354.1	5939407.87	5849215.75	5397752.61	12540418.9	6149762.17	5498294.69	13178164.5	13603399.7	12505523.7	6371235.41	9103967.65	7196758.82	17967094	14018586	23845936.2
Cytidine monophosphate	HMDB00095	6131	C00055	14145.9087	57630.6526	29239.4608	17861.4831	22732.8417	25814.9537	33254.1126	19830.6754	19781.3843	23722.6441	10976.9233	70737.4319	14928.057	27526.0258	15917.6716	14044.4698	29383.4752	3808.30121	13150.1069	26806.9313	24556.8573	109988.186	23583.6862	22096.5992	21767.4905	27908.9844	70540.4722	13997.4825	16570.6834	22915.1734	20509.7395	14075.1716	47859.6395
Creatine	HMDB00064	586	C00300	2960913473	3169900596	2906482728	2175978125	2653913188	2668622683	2732116816	2698472566	2796887355	3200611471	2865870211	2808047388	2111605542	2302299498	2161955507	2054753702	1986721204	2288103955	3572588388	3770300482	3890078207	3572613385	3699158298	3297230622	4079507054	3890712189	2455650366	3639108094	3688466188	3794579609	3244143177	3195182817	3871948814
Creatinine	HMDB00562	588	C00791	13180790.6	20791320.3	14789172.9	10469481.9	13647214.3	15269984.9	11823003.5	12091298.8	13772693.1	13905359.6	12553330.7	12112388.4	14658380.3	11439647.4	12209956.8	12270692.6	13842097.9	14331998.8	13749905.9	14322071	16387289.3	19514436.7	16955641.6	10777711.5	25666349.8	20869289.5	10723879.6	11341738.4	12406992.9	9735177.39	11984547.9	12577593.9	26477801.6
L-Cystathionine	HMDB00099	439258	C02291	74369.0407	111675.673	66523.5386	86339.0358	189731.035	115339.268	50977.6225	180871.882	125272.969	68418.5878	91195.2781	141333.66	45780.6623	87732.9671	144348.919	78866.1177	56003.1702	43805.1285	39173.697	40509.6339	49434.6108	88505.0843	43193.8018	26863.2973	20100.0203	34772.0905	53618.0341	19994.7335	30781.2886	30173.7402	26013.6825	52302.4488	27778.547
L-Cysteine	HMDB00574	5862	C00097	8891.68657	7238.25606	5843.9147	21386.0632	1667.67567	4619.01759	5157.7872	18098.9359	22081.6437	22818.5957	1325.53139	11986.6875	7370.78292	9799.35249	8027.46354	9921.6205	7657.96271	14335.355	3631.86504	0	0	7244.37539	0	4339.49767	2502.20267	4845.69724	6249.36337	1305.57798	1430.05589	0	2958.14806	1232.59477	5326.91224
L-Cystine	HMDB00192	67678	C00491	353818.825	365124.644	358203.254	548252.759	393302.617	316406.95	367797.384	484547.962	640726.352	619170.776	337966.237	399894.404	338183.483	407592.237	385092.232	396818.883	481863.758	448874.354	254329.803	232202.496	168453.882	319152.186	180853.024	276967.358	167422.658	218304.042	288012.913	210561.357	141885.691	115142.074	351783.809	143746.813	225245.962
Cytidine	HMDB00089	6175	C00475	18330418.4	28563183.9	17298687.4	19495055.3	18596368.9	20348735	17361499.3	19011384.8	26210549.7	17811109	16560769.5	23565682.9	17618902.7	15962308.6	17875704.9	16870144.2	31074878.9	15413889.4	8209113.82	10946922.2	9754007.91	22407126	10727888.6	15768385.1	14632481.9	17433307.1	14372233.1	9163675.68	12814664.7	12108965.3	11432273.1	11370822.9	16237950.2
Cytosine	HMDB00630	597	C00380	0	0	0	0	0	0	0	0	0	0	0	0	6659939.78	4264967.17	5032890.68	5255905.34	8023068.38	5700989.88	636417.893	470782.238	430687.213	834383.342	310251.344	365130.726	908851.596	987648.368	668634.294	378072.897	690657.761	908435.8	4721668.75	4083419.97	4686681.18
Deoxyuridine	HMDB00012	13712	C00526	232963.822	233314.198	247927.403	269689.605	346344.307	271899.937	298729.593	344577.245	413485.711	337596.517	221373.486	1166554.7	249547.8	423472.698	299740.391	315718.136	361455.366	485306.191	348065.293	302246.212	319803.074	641009.387	286981.081	283218.508	262652.459	320994.222	881686.877	258903.145	392749.747	218827.231	212022.438	300045.867	370397.719
L-Dihydroorotic acid	-	-	C00337	10317.5488	19973.7033	5602.10408	4001.23402	5656.60396	9433.4742	4474.33876	5277.14951	3763.78242	4651.02111	7870.99569	6515.4461	9376.52475	10289.4065	6593.3662	3239.29961	8913.64103	3073.26252	6138.63136	8688.0999	5594.26542	4434.63014	7795.46881	1261.15888	0	2991.57963	1498.75109	4671.88641	6565.18486	2511.58967	3810.84156	3727.80362	2523.03534
Dihydroxyacetone phosphate	-	-	C00111	1736191.95	1706507.12	1615211.59	1737585.66	1652545.95	1889046.53	1250933.34	2337310.57	2364157.77	1609194.63	1418412.25	2755178.19	1703820.39	1981000.93	1828391.88	1974658.76	1852982.96	2279604.36	4046653.32	5378874.36	5042716.98	2946849.33	2443824.96	3027075.79	1884051.22	1961527.5	5170297.68	2792357.31	3416373.13	2705855.48	3932033.77	2794359.37	1669343.71
Dimethylglycine	HMDB00092	673	C01026	4220085.36	3583951.66	3568975.41	4215561.15	4017816.27	3590159.76	3866944.49	4175418.02	3065309.49	3864591.75	3839527.56	3533152.99	3289629.81	3145365.67	3214101.54	3950330.89	3644311.16	3472917.63	5646040.49	6154302.69	6204061.88	5633060.93	5798105.14	5385643.91	6706796.54	6036884.81	5426023.89	5599458.73	5063204.87	5539529.17	5107869.16	4963302.34	5997155.03
D-Erythrose 4-phosphate	-	-	C00279	139530.09	210864.194	174611.622	93811.5374	148791.615	166254.27	103968.453	175745.47	228125.458	225934.476	131228.554	552181.113	131343.189	166613.498	170112.336	141875.328	81992.957	114136.781	113972.68	106240.978	162120.676	289573.891	168867.293	114923.474	166291.205	177841.074	160575.069	99558.7477	192484.143	124479.708	114770.23	136797.921	185531.196
Flavin adenine dinucleotide	-	-	C00016	401269.045	561627.188	485429.83	453432.672	404926.05	535994.851	417726.278	436317.545	571729.655	504419.746	425368.596	923537.994	439221.859	592639.337	548340.587	402405.928	432631.687	459263.785	356021.336	416871.612	446088.811	588054.656	459858.923	452396.357	411385.944	472566.194	588575.907	357124.673	511437.004	451666.61	415449.902	450785.3	427421.88
Folic acid	HMDB00121	6037	C00504	8916.81316	8879.376	18958.9268	27398.7641	15906.7989	11725.8082	16587.2558	22750.5219	19344.0617	19312.8826	12874.5616	27053.8288	21246.1501	21390.611	20175.6319	22390.2907	13655.3878	23439.7918	13002.7028	30776.9777	20623.5944	32305.674	13527.9641	25565.7079	9581.50601	29406.1915	26896.8818	16200.5853	17981.4864	24799.1995	31177.9243	25019.6157	26787.0583
D-Fructose 2,6-bisphosphate	-	-	C00665	89983.6546	216091.209	100231.712	177605.352	124924.697	247833.506	64958.6473	243275.597	507943.814	140739.039	75375.6886	491606.43	76340.8394	146116.967	128114.25	137481.452	181230.414	82653.4477	174270.121	184943.375	130548.664	269670.885	221739.25	219058.804	110413.373	106386.329	363048.793	246243.293	373106.471	201579.121	85488.511	243694.812	92744.9999
Fumaric acid	HMDB00134	444972	C00122	9126317.64	11457244.4	10244500	9053044.45	9119774.18	11566790.5	9456042.12	9870158.47	10965637.1	10465249.1	9285250.86	8844240.38	9294413.64	9367084.24	9550034.81	9515788.89	8045895.31	10403632.4	9212254	10918372.4	10739298.5	7918395.23	10513807.9	8995497.57	5771984.3	7478120.48	6418960.76	9398175.95	11041005.6	10258609.6	7951126.95	9808092.75	7786473.03
D-Glucose 6-phosphate	-	-	C00092	1274646.14	0	0	0	0	0	0	2362075.07	0	0	0	3105186.57	0	3212438.1	3126036.35	1281535.57	4504001.54	0	4101437.09	3622663.79	3285569.37	2792999.59	2031664.82	2556277.25	0	813747.268	4959715.86	3007755.97	2978884.83	2560984.43	2414906.19	2446052.41	0
L-Glutamine	-	-	C00064	370413307	354209222	388927874	448879986	375705514	389719415	410069268	360244131	367211216	430401790	346540935	400770597	339858732	390520042	363173064	370209055	364688659	410865720	340235251	395080234	353389145	301137224	354627009	435059122	267244673	331403299	258544163	373049594	370531316	426991003	380950230	386718693	310419288
L-Glutamic acid	HMDB00148	33032	C00025	101607086	156389944	102372152	95750530.1	111544423	115606918	88469498.9	135463314	148801232	108600804	106619660	134145763	104205208	99176785.8	106931510	104421937	134654074	97239990.7	119483429	130358877	129095072	144426459	138476281	111208359	156469394	155189021	125664161	123850192	128702159	120289765	109938295	114555618	140191757
Glucosamine	HMDB01514	439213	C00329	904437.396	1779448.84	999895.103	902959.35	1016052.05	1342887.32	628025.157	1218893.47	2527079.14	939378.6	1039143.21	228765.487	1583239.2	764747.03	1085565.49	1242756.06	1758809.44	874932.699	499660.147	378345.65	427937.217	252260.409	610726.969	540107.198	1305552.6	1269827.61	208857.454	441176.547	448312.812	324865.136	504867.373	457174.87	1094365.31
D-Glucosamine 6-phosphate	-	-	C00352	82555.7099	292160.405	127386.99	138233.178	146070.209	228555.378	47287.7046	213966.004	309067.82	93618.2171	92950.5547	28247.5675	98640.3268	50541.0859	70294.289	89727.7995	114846.235	45966.7529	46167.607	44087.2322	41296.4853	23423.9741	58586.2205	44884.4446	61164.2934	91941.2452	25470.3729	34023.1304	64050.7167	22222.5007	32510.6674	45528.7749	90871.7455
D-Glucose	HMDB00122	5793	C00031	3239463.35	2326081.43	4475178.68	6431710.35	5205456.92	5362781.1	1913102.51	3228703.83	3106939.89	3497119.71	2706604.22	4113263.91	4817423.58	5331639.53	4689118.54	4743769.27	4366244.87	5203119.24	3874914.15	5069077.99	3941578.6	5511285.02	4945016.62	5836749.37	4429375.31	6190176.52	6358885.84	3531770.87	3991652.22	4011161.38	6424583.87	6076611.25	6225870.87
D-Glyceraldehyde 3-phosphate	-	-	C00118	3143612.79	3748365.1	3055457.93	3001736.72	3182407.37	3253079.66	3060485	3525517.78	3760229.22	3365168.69	3146414.94	3942171.82	2960362.07	2928404.13	3163098.74	2966834.7	3708919.46	2952224.07	3143264.3	3096363.26	3207871.66	3513400.79	3172205.13	2774358.09	2925606.4	2932928.05	3288452.69	2877148.71	3073277.66	2504404.74	2864610.87	2814956.3	3092189.05
Glycerol	HMDB00131	753	C00116	218524.589	194250.174	240183.301	280983.888	219380.127	275433.939	133835.721	334598.662	328017.937	221068.15	169771.801	299561.805	304210.269	300009.201	316853.721	325837.84	244222.791	296954.797	407659.721	519935.865	462484.101	313100.71	330238.993	367196.983	200728.148	265349.831	570130.682	316233.728	383922.974	344882.737	403775.423	366276.843	223944.516
sn-Glycerol 3-phosphate	-	-	C00093	5005303.75	5457455.79	4811340.24	4808325.56	4337960.11	4872414.78	4249998.11	6370104.23	7199873.78	7339630.75	6811820.62	5112024.63	6540960.33	6920012.75	5760068.92	8075575.11	6503669.97	7381222.96	6311926.33	6649849.24	6415062.22	6072462.34	5820236.55	6095216.38	9635045.02	9193726.95	6688290.86	6951303.31	7053728.83	5753075.04	5353762.68	5218989.95	9689117.82
Glycine	HMDB00123	750	C00037	474754.728	841323.948	681413.357	540668.61	1008709.95	918242.27	447784.589	889967.679	1011540.35	612815.549	544606.688	970462.122	713297.21	561126.864	515607.86	675074.632	680671.075	575182.615	736439.214	754075.817	700520.33	2483312.84	848748.322	883679.619	5592806.74	5323543.48	822864.766	834447.171	1316190.27	930449.618	951028.916	804996.558	1982097.39
Guanosine monophosphate	HMDB01397	6804	C00144	69760.9349	545930.397	179304.937	124697	127381.205	197249.835	83165.6271	148218.229	136365.85	145105.66	45030.067	295878.737	33476.7501	105106.6	59825.381	48781.8935	69790.509	34078.1355	90326.7066	98035.9945	145319.428	458402.847	124477.906	118194.306	158508.05	175762.466	309056.412	88831.0485	97928.8078	112168.335	111873.404	98329.461	339508.568
Glutathione disulfide	-	-	C00127	516024.282	1229314.72	554648.203	287266.621	445664.974	582551.263	724161.13	257708.926	569424.619	629191.285	571160.508	587727.583	164964.447	392052.915	299685.446	230269.384	268983.472	279385.554	906107.329	969795.796	1278285.94	1037544.51	1302877.2	893309.153	791707.274	839123.877	506531.002	722033.154	968040.082	1017377.79	738592.088	923366.732	989341.384
Guanine	HMDB00132	764	C00242	101938035	142049244	102828722	83148342.4	91162599.5	108178934	95392896.6	112398720	152336036	125037724	113163460	113842715	112083717	92107066.5	99341867.2	94316969.4	127747897	104049639	105949211	85540166	106155427	62024554.9	106209739	82256077	97148798.6	83349220.8	73090269	95940684.6	105911813	82643964.9	79741552.7	93230872	95437299
Guanosine	HMDB00133	6802	C00387	13362583.5	16580663.6	12924766.2	12008429.4	13633183.7	15095939.5	11383062	13676845.5	21616342	14447799.4	11719411.2	36130076.7	9906852.73	16311675.5	12684540.9	11881786.9	10411781.1	12177410.7	9757572.75	12774491.6	12291321.7	22816002.6	15500643.8	16526908.7	16463707.6	16153201.4	22411326	13240079.5	19971889.4	14665811.5	12149318.4	15291736.9	17266414.2
Hexose 1-phosphate	-	-	C01002	856989.948	512941.894	509967.602	717301.197	502301.741	552328.716	595163.246	859639.814	897014.216	626420.123	635254.38	1567399.33	941528.859	1295370.55	1244168.41	1038273.8	1993771.75	820913.049	2026704.75	1861225.52	1626257.31	1214781.24	931313.171	1174525.86	514922.616	682673.375	2457625.02	1195915.43	1329000.56	1105138.68	1053704.64	1095134.01	556386.417
L-Histidine	HMDB00177	6274	C00135	81194498.1	77635037.8	84536880	92201628.6	86276727.6	88929150.2	71246695.1	97233121.8	97586013	92877835.6	75174179.8	132047846	85661467.4	90328962.2	89818895.6	95580766.5	85989700.3	95196963.7	96594385.4	106719059	96895928.5	137389545	101682588	99808495.3	85092467.8	108538741	108813466	98684565.8	103064486	99014208.2	101784901	104445152	123722592
Hypoxanthine	HMDB00157	790	C00262	86021377.8	100442689	76578939.2	68304764.9	79430400.5	79428503.9	76998240.6	85942288.1	92887622.8	84681452.1	81617886.9	139578928	79861834	92106502.3	77823499.8	77001213	102470435	80544633.1	97195984.5	102441024	97269304.2	120170095	88974697	83054657.5	103676044	92884618.2	153785334	90801061.1	103523172	90168044.2	86180193.7	88568318	89463410.4
L-Isoleucine	HMDB00172	6306	C00407	202015018	252339293	216247768	211474132	207942953	223636552	203298800	210577036	253992467	249047629	197808117	250287355	197096188	218749854	212543401	200952188	228049715	243649427	210931816	235470965	230139486	263449798	240406820	231126258	221997529	277227733	196046701	208064458	246120336	227234972	218876623	238821514	302514765
Inosinic acid	HMDB00175	8582	C00130	0	0	3591.93693	0	0	0	0	0	0	0	0	75945.2991	0	17765.8501	0	11519.9746	0	0	0	0	0	128099.506	0	0	0	0	134324.156	0	0	0	0	3880.352	5557.88997
Inosine	HMDB00195	6021	C00294	29772548.8	29418218.8	25612551.4	27643361.8	38298846.6	37671434.4	24996493.5	22325580	32128015.2	24779022.7	23244146.5	93522206.4	18912734.3	40442002.1	25603133.3	27527632.7	16071393.5	26468879.8	17982450.9	30379338.3	24556871.2	78425385.4	29595920.5	48333393.3	53892191	45756663.9	85874375.5	28797550.6	45652805.6	36764205.7	32668251.7	36594337.8	40930174.8
myo-Inositol	-	-	C00137	16347542.4	15000123.8	16268919.7	13102948.7	15963502.9	14275577.1	12355525.1	13581603.1	16605604.3	17025185.9	17067427.7	18394136.2	13596375.6	13625845.8	12776953.6	14933350.9	11220223.2	13759768.9	16062886.3	16973216.5	17420677	23192285.5	17652288.2	14822486.6	31293891.4	28105018.5	14210622.8	17312608.7	16638576.7	16961861.6	19367962.7	15936119	29160789.8
L-Carnitine	HMDB00062	2724480	C15025	100643436	139175032	109233277	65549729.9	78440584.6	103824921	77096596.8	80128021.9	148861449	135822434	96165383.8	167094141	55078964.6	90030840.6	76057040.1	72160563.5	80533268.3	78209605.3	442208222	380806150	477596582	338482983	457888527	335809693	508948470	446009349	234769166	388383871	522475800	394492449	268096479	340248404	470590647
L-Lactic acid	HMDB00190	107689	C00186	76596424.7	103248080	90361682.8	89020959.8	78083655.5	90016168.1	84699288.3	81292691.4	102270740	104906464	77184069	87347861.8	79313084.2	92673302.6	86176028.4	84599066.8	80832371.1	97411197.5	89004491.2	102233952	98612899.3	102305834	102220945	108502649	93606489.1	130450565	75813693.1	91705149.2	108012991	98089534	98750539.8	107054336	145809690
L-Leucine	HMDB00687	6106	C00123	125613155	152157732	126001559	115175058	121556335	129059280	107340159	110930224	155653501	130426373	113604631	142677477	118495116	115320328	119091329	110014089	130513105	123770341	112432144	119728644	119281788	119301105	117408051	105082797	124529920	134273738	98180166.7	100587023	112233277	95064644.6	100244007	103577984	146195605
L-Lysine	HMDB00182	5962	C00047	15556932.9	22494257	17695108	16321138.1	17265132	23037189.5	14408148.4	22227256	29308934	21676513.8	14350417	30938116.6	18819122.6	17520613.7	17310794.6	15553802.3	19060207	20532496.6	11761855.8	10720804.7	11187126.4	17156808.6	12847263.1	8847422.62	14088952	17619854.9	14607753.8	8381947	11856134	7379131.42	10018754	10197059.7	20943469.4
L-Malic acid	-	-	C00149	146583091	154915098	164547097	143352487	149260075	152634806	137190548	152462601	136187763	142613963	139862370	134403028	141106789	139959199	141078916	153261241	124836887	135599042	137950301	158566759	153426230	116344752	145537258	137084330	87040490.8	112443106	94749253.1	147386055	148160579	161743069	121378605	133737078	106387231
L-Methionine	HMDB00696	6137	C00073	55735036.8	68041022.9	56140528.1	49554287.5	54291168.7	58140332.6	49266929.6	54144945.1	72032894	61113359.6	50995539.3	94140684.4	53933144.4	54734897.5	52579971.8	49655657.7	61869951.3	59433502.5	47394633.8	47287788.4	47913913.4	61441433.9	49522133.7	41340625.9	57548125.3	65119847.4	49587211.5	40947307.3	48713648.2	37999382.7	41731901.9	41973456.9	70275186.3
1-Methylnicotinamide	-	-	C02918	162719.265	268029.462	187022.887	162493.129	191668.941	191872.193	146919.805	200044.385	291556.391	207025.699	161773.788	296628.504	120377.912	161353.978	160982.76	148628.236	177405.81	150658.964	122486.34	123326.163	144782.556	167280.555	137644.076	108784.029	139189.555	157867.858	125633.942	73215.3542	127713.126	110669.703	102834.042	115405.758	153866.272
N-Acetyl-D-glucosamine/N-Acet	-	-	C00140	380896.119	297605.225	335901.305	353758.523	376526.814	352516.823	327664.919	357525.49	523814.333	389096.016	356466.78	881150.967	323716.801	518701.142	422380.927	433799.962	354127.772	411693.586	440240.996	515189.624	404942.118	526062.521	333856.028	441130.756	268459.921	357093.366	862100.877	439184.591	676661.752	471366.092	345505.59	408853.332	346224.972
N-Acetyl-D-glucosamine 6-phos	-	-	C00357	4020511.16	6557873.51	4453662.8	3318414.29	4243274.94	4690917.27	3209551.42	4314966.09	6941700.77	5223968.63	4516870.97	3763158.1	3028518.28	3109591.88	3563883.4	3251703.85	3820046.12	2962801.93	4080205.5	3567205.6	3943060.65	3133827.78	4631172.55	3429995	4556267.42	4602572.31	3647214.98	3142055.87	4155331.2	3333380.38	2339518.95	3095590.08	4159846.61
N-Acetylglutamic acid	HMDB01138	185	C00624	161910.875	230492.306	172537.414	138958.653	145664.926	158310.483	149598.638	152983.409	176071.589	176710.765	141397.744	144718.657	160738.027	174396.505	191457.919	187001.975	189075.691	176024.979	181280.71	154743.076	244759.972	172566.943	206323.801	169311.1	127152.982	131889.501	161731.652	203595.476	174166.65	223410.742	154552.965	245397.776	182886.867
N-Carbamoyl-L-aspartate	-	-	C00438	10282.3042	14542.2015	25165.0542	36194.7916	37690.444	17845.326	6885.10848	43042.6209	19078.1581	7357.77974	18124.7357	50430.3594	17621.4814	33272.6513	31853.1758	48271.5427	4323.36178	15068.9179	7713.56913	19362.7999	13411.8854	34075.2624	16167.6449	21818.1632	3723.21973	13025.5547	18163.6961	9954.62748	12572.9606	17401.7283	27208.5679	30887.6563	11091.1127
NAD+	-	-	C00003	22524.9733	26453.7549	36139.1513	17998.288	26468.9198	18423.3285	21342.9902	25034.08	14702.9719	29669.9447	25797.4891	67959.2731	16344.8877	40589.2749	18486.3212	20443.7273	11324.4468	18972.2922	25831.1598	36774.192	38978.1384	78205.4468	28637.1638	24615.5157	85532.3378	63585.3648	61336.5618	31188.8408	36096.6792	45385.8409	38587.2798	27429.4522	46465.606
NADP+	-	-	C00006	6174.86528	13089.453	12922.2237	7902.46038	10084.9677	11974.3449	7285.21972	10343.0534	8491.39613	13085.0513	8948.85991	18904.8176	6973.17046	10059.0043	7371.31596	8368.50648	5637.84105	6879.73895	11224.4312	10575.0811	12298.5741	18972.4328	10180.4068	8816.00594	17339.2137	15972.416	13775.5035	11005.3116	13457.5349	12318.2567	12874.1778	15313.8065	14047.9712
Niacinamide	HMDB01406	936	C00153	35964939.7	41869034.5	36419477.9	35700528.3	45201587.6	45633655.6	37848183	39145329.1	44085966.9	42660064.5	34256350.8	91758642.3	29269772.8	46238203.6	35557274.1	34876801.9	32792000.8	37652588.7	41099329.1	54601792.8	46860232.6	87082244.9	45399224.2	54434030.9	46984834.8	48769372.4	92303151.2	42017528.6	59137226.4	55357670.7	47474349	46973932	47571125.8
Ophthalmate	-	-	C21016	1580.9738	9410.38344	0	3387.1005	7268.964	8935.64712	0	9393.83622	2229.16982	0	3943.38263	24608.5011	0	9765.25495	11354.3936	7638.81877	583.524578	3793.79145	2178914.74	2264082.5	2316293.42	1845367.51	2192063.63	2656194.31	2230803.59	2110819.17	1280591.51	1805475.9	2270456.54	2092678.55	1947420.74	1976811.57	2173774.75
Ornithine	HMDB00214	6262	C00077	13310117.5	16239425.8	16055928.4	15544151.9	15479456.6	19329527.7	14412348.1	21717656.3	20289119	17947626.3	13313884.4	19273090.3	18955236.4	19117871.9	20159601.9	18813226.8	15382017.7	21597833.5	18453754.7	20190774.5	20440930.2	19216917	21092790.6	17956590.7	16867608.7	21319408.5	19655276.2	18744415.5	22068238.4	19819502.3	24117994.5	23982058.1	27060099.8
Orotic acid	HMDB00226	967	C00295	2505105.43	3912619.82	3789772.76	2522456.74	2464270.55	3162186.29	3603037.64	3035440.07	4427973.55	3588258.31	4005760.23	1756100.49	5419191.74	3332601	3697111.19	3734487.39	2381761.01	3880533.33	608002.229	576570.058	632486.463	631187.782	582096.91	502825.145	374841.628	368221.749	559062.801	385538.989	484682.623	453117.436	452131.171	695469.557	569964.842
Pantothenic acid	HMDB00210	988	C00864	5336458.98	6761155.61	5729435.09	3999067.32	4429814.48	5414161.35	4203278.29	4758270.6	8559178.25	7057349.6	5308278.31	4842421.02	4112245.91	3663682.03	4294047.36	4198712.99	4604175.12	3867805.01	7091749.03	6173612.28	7401402.17	3939215.22	7889950.81	5428033.79	8663794.66	8412419.29	2640451.19	6776314.58	8095525.6	6319135.82	4632848.8	5616169.05	8592478.92
Phosphoenolpyruvic acid	HMDB00263	1005	C00074	1704494.06	1423166.69	2268502.41	2139101.2	1775519.2	2299123.52	1226345.6	1825309.19	2023836.8	2435398.44	1762973.72	3702389.02	2661785.38	2901377.69	2467387.73	2512896.69	1678660.25	2832315.27	3813092.87	4673348.85	4354005.39	4906135.6	2706103.78	2721523.97	2738412.62	3235240.2	4405368.27	3317719.92	4842035.95	3301300.26	4010194.9	3132708.45	3076381.97
L-Phenylalanine	HMDB00159	6140	C00079	45238290.3	57903017.6	43849721.6	36456900.5	43454910.7	47333782.5	36009582	41584010.5	51779616.4	44486502	39334510.8	61687585.4	43372688.2	39381475	41187052.5	37923477.3	49648907.3	43627514.2	36478349.6	33948223	35991158.2	38233980.1	37807112	29182567.7	40041367.2	40541183.3	31131917	27435476.4	31552464	24604580.8	29046645.6	30152285.6	45346950
L-Proline	-	-	C00148	1117029211	1319295319	1129267956	998203095	1085430916	1178533599	1100143550	1122719034	1345625050	1318030959	1034766283	1547886119	1035538308	1126894848	1064107047	997249727	1174029089	1254999045	1022768566	1084731541	1091242352	1391243539	1108291258	1012511757	1038165002	1211909273	1179013589	963843325	1147308232	1005827228	996308241	1041017484	1350921254
Pyridoxine	HMDB00239	1054	C00314	367541.398	837050.914	716486.048	383385.249	659065.618	845537.101	141275.058	152521.126	206891.259	150794.61	126627.06	120712.569	598592.365	395789.975	536871.077	393378.727	535130.457	327838.629	465668.288	372198.796	586030.901	251973.018	560175.985	421944.948	133921.612	173120.75	92042.444	113583.224	140408.581	122287.121	232025.499	322554.912	300902.127
Pyruvic acid	HMDB00243	1060	C00022	201174.339	698950.904	343255.02	289347.832	395673.917	892570.54	498959.867	589925.184	1400087.78	559261.066	417207.388	898920.727	393790.012	429899.133	612208.942	371143.716	273730.18	470967.123	339203.236	391189.659	398382.978	627485.781	833649.12	589120.647	882224.509	748509.922	735004.688	326427.264	828116.582	399410.814	348997.6	674783.622	859367.485
Riboflavin	HMDB00244	493570	C00255	64930.7913	133817.566	74925.1671	51224.8668	56672.0393	81192.6295	52632.2443	69135.4514	163520.904	81727.5718	62988.795	49893.8653	82642.3314	62480.7336	91667.3274	67811.9284	97434.9248	71905.4409	33337.5631	38168.0769	41602.7594	19011.2767	41076.8455	26663.5926	79876.3285	81586.0335	19014.2203	30686.4022	40014.7045	27509.9679	29691.4685	34789.0262	84546.5057
pentose-phosphate	-	-	C00117	2790085.79	2386554.01	2730047.63	2641326.4	3563897.36	3135502.02	1803599.84	2391104.97	2860454.63	2475989.59	1998098.7	8245065.25	1897591.71	4521161.55	2580777.41	2413356.15	1636427.4	2510319.12	2657226.31	5004466.13	4054226.89	9929310.36	3865422.85	6629916.31	5244215.76	4638783.99	10856743.6	4033285.35	6841514.54	5402230.36	4798154.6	4782821.47	3537972.69
S-Adenosylhomocysteine	HMDB00939	439155	C00021	8875001.95	9315959.78	7947560.3	6534072.44	7470306.7	7918251.93	7047053.02	8840741.11	9551022.27	8853322.3	7840538.01	17661823.8	6385964.3	8616058.09	7809943.31	6652476.04	10042172.4	8198169.67	11028376.9	8948592.91	11018961	15591549.8	9275738.6	7732427.03	6840678.08	8356902.55	15854226.8	9547248.05	11635312.9	7444038.79	6936863.57	8962272.15	8452029.21
S-Adenosylmethionine	HMDB01185	16757548	C00019	124063.098	200380.264	197580.182	338122.859	267522.668	301968.92	194515.256	183508.489	260433.441	244021.583	114996.603	1032413.31	59654.0168	409215.894	243628.844	218214.02	61611.4588	212147.248	367749.552	726805.983	507673.53	2001351.92	470793.535	730769.961	255089.163	399931.357	2191299.84	489796.558	816841.098	928842.014	645326.474	601980.313	472489.033
D-Sedoheptulose 7-phosphate	-	-	C05382	414117.081	357669.385	430001.976	509864.171	496103.91	578974.205	424412.796	365639.481	820435.753	476223.52	356370.065	1649626.43	404203.365	942533.209	664268.327	560700.156	344936.716	457712.539	463588.195	867174.709	591615.134	1600152.38	745149.627	961923.607	655750.674	784937.24	1910770.03	658640.84	1273601.11	1020500.91	746487.416	937092.297	893339.989
L-Serine	HMDB00187	5951	C00065	10964337.2	11096141.8	10877956.1	10958508.9	10277969.8	11224726.7	10686161.4	10565843.4	11617240.3	11773405.9	10287702.6	11220230.6	9899284.63	9615487.04	9891448.9	9407473.26	10876778.1	10620569.8	10300021.5	10432450.3	9638239.33	11850845.4	9939628.49	9608322.1	9570957.98	11517095.5	11211120.7	9566462.47	9356086.87	9894334.89	9524687.85	9017663.85	10971105
Succinic acid	HMDB00254	1110	C00042	359626.81	1030447.21	747717.979	540705.964	1490805.07	2084740.76	279375.291	485894.259	817840.06	482064.805	294823.35	483525.653	403470.425	413892.676	413213.017	397885.82	156156.323	473884.479	404875.318	521351.849	564815.235	590103.03	860822.247	764808.581	496577.962	677416.099	258647.951	363830.752	873220.635	869121.425	551304.306	807416.789	691995.545
Thiamine	HMDB00235	1130	C00378	905421.186	1680690.23	938080.511	928369.853	957629.426	1049802.63	667230.658	1195591.42	2077938.27	1160188.13	938965.021	2235483.86	824556.156	1277291.82	1206201.5	983646.402	1552021.72	848893.175	969660.74	826809.417	904054.551	1150129.06	875452.806	685234.348	822596.462	918300.19	1035462.86	615327.63	893846.252	811834.406	569570.857	805447.58	956611.971
L-Threonine			C00188	44221665.8	55100519.1	45517831.5	39081609.3	42416924.5	46624747.6	40442730.6	43355497.2	55434500.4	49291608.5	41630062	65283411.7	41798501.9	42145765.5	42114439.1	37702649.1	49947274.8	46281623.1	34087650.7	33118317.6	32936576.6	41194147	34217040.5	27198260.7	38239973.5	42353809.2	32994797.4	27671515.7	31632755.7	24944455.1	28535543.6	28249435.6	46319918.3
Thymidine	HMDB00273	5789	C00214	323218.244	387552.977	385905.587	507829.193	520393.172	450320.326	430732.937	506305.025	529250.839	437703.992	292418.275	2010365.31	392819.726	682628.263	457086.936	443083.997	520946.015	744013.29	420182.516	473784.677	390290.351	1427036.38	436006.681	600224.731	548666.188	595535.32	1721464.43	403608.782	613713.472	500208.718	420813.917	540323.656	675272.922
Thymine	-	-	C00178	261607.36	429441.407	275006.64	364597.264	356874.288	395971.931	332521.518	389237.487	430896.925	294208.251	261608.977	1126258.76	282436.794	437485.11	345045.83	321389.743	459229.894	424808.065	219395.659	227268.496	169012.488	325566.329	173699.723	249908.059	291861.591	278948.239	473816.918	177237.465	244501.892	183303.484	193470.627	186095.454	279861.724
L-Tryptophan	-	-	C00078	20166949.5	25375700.4	22084690.7	20257442.2	21426551.8	22398818.4	19152722.8	21964113.6	27954046.2	24096289	19237857.3	30129132	19443110.6	20224532.3	20535881.8	19168860.2	21154262	22151321.8	19315299.3	21370236.2	20779358.1	24047436.4	20976866.1	18459479.6	21370281.7	25760158.2	16459877.7	17917258.7	20940702	18418999.2	17949712.9	18351300.4	26597745.9
L-Tyrosine	HMDB00158	6057	C00082	41999874.5	53308402.9	42891273.2	38539083.2	40951396.6	44335114.5	41081558.5	43606583.1	56476942.8	48184473.4	40057566.6	72210605.2	43885476.9	44685784.3	43878262.8	40465324.4	53389769.8	48757935	36618172.8	36565382.4	35788907.5	47519000	35853163.2	31627585	40979294.6	46756784.9	41084505.5	31478407.8	37641073.7	28380645.6	31955725.2	32463427.9	51244476
UDP-N-acetyl-D-glucosamine	-	-	C00043	592252.779	694590.998	486978.896	387800.405	832225.167	1228019.83	348952.939	142155.087	638392.666	456419.105	191887.69	3845957.04	149208.144	686111.315	261130.622	255354.843	84597.5072	238931.99	263688.177	702454.591	421707.52	3431371.59	916799.894	2205374.45	860363.657	810547.891	2779503.64	526371.812	1756993.31	1116273.28	707943.564	1054787.13	793949.96
Uridine 5'-monophosphate	HMDB00288	6030	C00105	6530.03635	64284.9727	25630.1518	16084.4125	25687.972	22151.3469	14638.5083	15287.7117	14494.0825	16648.4469	3609.78838	178283.544	4472.83089	37123.0126	9173.41302	5594.17205	8449.48349	6026.81124	14793.2597	24282.086	29520.4746	279466.99	24067.1509	33247.4312	31829.2967	38329.2257	415738.892	19375.2372	22604.6207	31961.7733	18836.9957	23021.9948	91703.1639
Uracil	HMDB00300	1174	C00106	2440247.8	3262870.96	2542308.42	1867628.54	2526713.96	2667516.18	2270806.51	2026829.43	3898924.17	2616920.52	2468291.94	5787085.77	2650104.44	3041460.84	2220027.55	2158613.71	2009668.2	2599407.89	1627954.34	1797955.53	1802471.78	5604164.9	2061697.71	2427075.16	3579613.46	3361175.41	5963976.43	1568925.14	2553861.33	1831409.35	1722931.05	2016425.53	3289682.42
Uridine	HMDB00296	6029	C00299	589610.798	671939.263	464412.437	367862.866	691410.734	683152.728	373509.775	309902.683	860248.5	480498.003	443850.218	2136651.33	325604.123	744055.621	326045.579	358092.195	285765.171	430852.255	428396.505	536283.71	502593.38	2452409.78	621000.636	893611.073	1349437.59	1299552.36	2699652.09	483130.366	932404.738	593876.158	564466.293	590161.707	1083543.34
L-Valine	-	-	C00183	159227504	183848799	155030746	136526698	143262455	151412900	140803337	138424523	188883147	172711343	128447281	224229053	152691066	149849104	149458630	135772778	176287825	180567671	111610962	126510046	119888246	157495646	126215382	113400537	130506376	159484674	119818089	100994290	122664907	98730060.5	113693810	114086200	178467921

2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Bhyo	Bhyo	Bhyo	PBS	PBS	PBS	PBS	PBS	PBS	LPS	LPS	LPS	LPS	LPS	LPS	Bhyo	Bhyo	Bhyo	Bhyo	Bhyo	Bhyo
324563.894	867042.136	909393.053	28084.5195	68530.6508	64307.3425	13943.053	64174.8719	59358.039	67487.811	39402.5735	54799.4852	0	31139.2353	27453.0234	36787.3501	61447.9825	18430.9847	0	4131.2989	47142.7806
3144572.05	4431008.41	5275746.74	271085.536	220071.206	206620.709	261524.057	248436.706	235187.617	225069.917	206934.877	99676.4905	5225.746	120632.672	582247.478	93828.2475	322242.613	37712.9189	4094.86348	188838.648	12331.6944
3403379.46	3574645.5	3851426.7	375768.49	290786.42	292932.927	474669.422	338062.389	365280.923	318845.232	274569.201	280096.974	424983.283	151471.764	1299009.24	162315.928	434057.918	104924.913	80396.3712	193394.955	103251.605
2837627.89	2520403.4	2521723.62	213946.294	166554.32	241737.548	254618.783	241250.79	217995.89	187907.355	146385.383	212602.795	157974.772	140271.553	691228.651	71530.3883	149663.089	25891.5684	53952.2059	33287.3132	28451.9047
57210179.9	81889008.6	64073672.3	41972111.6	61150138.4	67424835.2	64626983.8	62758030.2	78905106.6	63362462.7	40678001.9	49767256.9	23370634.8	49135276.4	43072219.5	38586149.9	31994820.5	10004159.7	11804566.5	39275971.5	14991081.9
7632063.93	9611883.46	8054249.97	7024147.45	6479063.72	6319153.24	6176771.65	6208325.65	5206463.22	5719260.18	4859868.64	5062886.94	4035670.99	5290202.35	5702258.62	6656801.46	6150988.42	4579625.18	4951988.19	6542270.44	4985980.04
97224.1587	123651.974	121035.888	86098.3325	105281.488	105644.064	114155.23	111848.27	100327.949	137684.722	110393.831	79216.6559	62168.8334	114726.658	103578.112	111693.481	283807.514	44886.2329	61052.5976	76709.5573	62130.0062
12997115.4	13193634.1	11025126.7	7397858.41	8164151.21	9326435.69	7415720.02	8162852.04	6950800.93	4938165.7	5807448.85	7112050.54	3412670.41	8952199.05	5855358.4	5557281.85	5337607.29	3293726.81	5135800.7	5706756.5	4387970.99
1718857.64	2078648.08	2218020.94	1324102.79	1851754.73	2069722.02	2047965.7	2433689.58	2310976.36	1833045.54	1440122.27	1677057.77	772675.26	1759409.72	1653446.63	1713151.36	1865476.37	847060.158	809357.427	1864814.81	824795.673
0	0	0	0	0	586.806542	767.903244	0	747.915958	818.333743	522.01656	0	0	1389.87746	479.969281	0	0	0	484.485223	0	0
306078.279	425499.015	355479.033	120915.344	154269.066	135681.02	131353.136	149533.11	162072.797	127810.851	103697.202	123455.847	90534.9004	105778.258	126688.915	124867.869	153095.445	65723.3742	71810.6422	102683.622	56028.7474
14741.8179	22095.6811	28268.8505	22765.8875	29290.1337	38119.8629	47340.3472	33036.5186	26895.9068	33916.4606	12463.3641	21440.0913	8819.88855	35305.3567	30731.9014	90011.2038	61849.3709	28546.6718	26287.2338	60122.3477	34522.4258
890824.95	859383.543	1006807.11	1277757.98	1425942.94	1276629.95	1614502.43	1584046.68	1524078.26	1237222.27	1231565.96	1065355.95	1044325.6	1449385.64	1501763.21	1189953.45	1392807.03	1251264.66	950538.185	1408894.1	965004.237
9404.75919	25994.5421	19380.7099	20643.7329	42967.7397	101052.241	18297.1836	21885.2502	90423.2092	81293.9028	38370.3771	20538.4783	16050.0133	59586.5978	66027.0175	17965.3544	25974.4217	43074.6693	17281.9838	10239.3619	66565.149
13287.6131	30647.031	35414.7569	7223.36697	0	2562.21844	1845.12304	0	2116.37695	5324.24665	0	0	1388.43772	4054.59946	10894.6786	6004.96885	14235.5399	6863.90349	1475.43362	4037.55961	0
44522682.4	44007786.6	50155445.2	24558183.3	29486281.2	41660799.8	21532607.9	29934562.8	28234109.5	34597069.1	31556541.7	27451505.6	21290947.5	32983370.7	12908615.3	17917589.3	27243386.4	27896092.2	24528238.1	26402103.9	18999289.1
4235082.39	5317787.19	7228262.8	5845108.47	6725783.75	8127637.45	9728263.32	12928151.2	14194706	7296364.26	6653522.63	4839439.16	4915192.74	5736784.74	9548272.58	5801054.87	10655764.4	5917208.16	6287891.86	8523152.94	5816600.18
87747867.3	87838491.8	80379491.4	97616260.4	101058790	94532112.7	100884845	94113568.5	100396569	93996589	95824364.3	87673963.2	84925834.7	90421364.2	97402082.9	94842226.4	100658127	84041611.1	87502533	92834869.2	85023693.1
325012.132	591236.938	432759.62	802259.697	509283.694	1128682.06	621657.413	1353331.08	857073.123	617698.068	377843.823	402012.077	353271.216	454221.126	1251631.05	726202.887	1603338.07	579461.959	315761.486	843743.383	310487.303
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3933939.91	3844545.26	4119981.75	6039901.5	6091053.81	5606836.99	6153361.85	5633754.66	5524775.05	5537547.02	5216194.25	4449585.37	4733102.59	5284025.63	6733494.63	6358390.11	8260785.82	5234367.46	5479289.72	6561652.76	5174340.5
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7862005.98	7915266.9	7317102.36	19263381.2	21108919.1	20334167.6	22043663.9	19667634	19866704.8	21761557.5	18755865.8	17386145.4	16231700.4	18780620.6	18990025.2	18464034.8	19661652.2	9485876.13	11770180.5	17461518.5	12117081.9
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31174.6464	17674.8754	24708.3954	26173.2589	28890.7385	36222.6202	39345.8312	29144.4972	32717.793	27381.6751	25490.4077	19847.028	21459.4769	18530.5686	33873.5184	22910.2288	29346.6089	22859.7779	25603.5792	29261.1853	21298.0971
4350.81781	19471.7828	13791.7821	1680.26605	7017.61134	11928.7831	16922.2457	15237.4267	11000.94	15346.7309	8990.39043	7615.4958	0	4994.22965	13495.3022	15560.7461	22368.6498	4556.09811	3396.82216	8972.49735	1103.82335
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730669.496	879178.649	996332.007	456084.099	426428.072	432668.508	583800.357	570190.394	352621.109	365024.265	361085.129	307176.44	279534.025	358343.522	686254.759	565624.133	797405.63	597081.489	345438.422	476529.415	345842.435
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15612413.7	16729111.4	18311089.9	13601600.7	13476045.6	12883517.1	13523296.8	24259071	18761171.1	9908666.64	9370740.1	12827408.9	6217952.09	11088534.9	12876619.4	16788024.2	15933804.7	21235705.7	13728267.6	19037793	16679090.2
12549.1239	21725.0784	15840.5609	52433.3422	34451.3983	74139.5892	29386.607	75736.1294	65219.8925	27833.4377	11141.5803	17669.6472	11323.8111	20944.8748	70864.176	40482.5929	70101.3805	22634.9864	15778.5988	39481.9835	16883.2717
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12249934.8	11609731.9	10331651.5	29548420.5	37981900	31295055	34305465.2	30827007.4	35091960.5	25612722.4	25533904.6	22158347.8	16660686.6	25522243.6	21986434.7	29419052.3	24066608	13667520.9	16633573.1	26773430.5	18865347.5
45299.2277	34689.1951	51680.5517	406645.894	288033.356	238533.547	409810.449	306500.727	411286.336	354048.733	259050.481	147281.672	169038.54	368669.366	307981.244	270549.538	229848.657	108934.959	158717.326	225633.664	201223.882
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209343.329	193066.272	190955.228	1494849.99	767604.218	271747.538	461287.857	666829.61	608384.117	745587.71	716682.024	251493.703	557203.612	212122.85	546307.23	419073.754	436742.019	1464192.82	878265.354	593151.687	517733.886
9470827.19	11752663.3	12033133.3	11723933.6	13363682.7	15599104.7	14817874.1	20051264.9	15327515.5	17507416.9	16089829.1	14137359.4	8382398.19	15084947.1	13969057.2	15958047	19035550.5	17357752	15691298.9	17936891.8	13291953.7
5397461.26	4403237.73	4467181.19	1648431.35	671548.104	824834.003	1941131.07	3419660.9	2694432.1	0	0	2443372.52	0	1163369.44	1897198.49	5709919.72	7113802.14	7704806.13	7111979.03	7192609.52	7081223.31
296847.813	374694.346	307568.992	348811.139	380562.326	354499.716	473116.107	447109.131	416971.199	477757.209	471935.947	381412.255	297304.668	441779.224	630062.792	527527.914	868024.388	554344.35	334495.738	503679.66	286676.117
0	6374.34755	2394.53274	16103.989	13307.7524	20664.3765	12970.8821	11614.9508	18195.8688	5287.18104	0	13984.4062	8608.98925	3165.0714	8730.88063	11781.5532	15603.4203	6739.76562	3643.26551	5372.00814	3308.20624
3883700.38	2828821.95	2823349.23	2305559.62	2914733.26	2698003.59	3469697.59	2762313.95	2143208.95	3256561.32	2486765.16	2311527.34	2443594.9	2832566.43	2846673.75	4248669.09	4248443.1	3627158.46	2922193.73	4224049.39	2823032.77
5289862.61	5330711.63	4633917.36	3873418.82	3570800.62	2840698.6	3371655.05	3049906.53	3383138.56	3305434.61	3420733.38	3524923.44	5149120.8	3397441.6	3754702.79	3007121.9	3219490.87	3062327.3	3609669	3714135.02	3318335.05
109267.276	210896.968	136715.186	130900.504	146723.601	137521.503	168244.066	223561.743	169999.253	165726.329	87186.4058	72302.0972	59698.6947	138317.735	197484.652	185113.127	211401.982	104607.459	89204.8675	127193.282	77333.2941
436958.944	518161.918	510408.382	544942.214	570732.906	590186.574	682532.61	559562.227	573776.748	588710.471	559431.304	567699.041	314270.951	570865.099	620499.457	657773.177	781023.827	603521.418	493209.105	589995.44	487610.15
25333.4889	21555.2648	26422.2214	21207.8248	14454.204	17207.6618	20528.0231	23625.0148	9257.25724	14185.5855	16782.6723	15422.2355	18596.0802	15873.0065	21391.2046	16915.6482	19777.1263	25931.4138	12571.8038	13840.7306	14900.2121
80561.9559	216502.059	210268.664	88726.1692	102154.633	131914.715	203708.305	121967.281	140544.709	179160.27	111352.069	92465.1945	25887.725	50404.2414	76717.1675	190491.247	174123.639	52818.1214	80693.6896	132856.671	58925.5919
7757509.17	8743291.24	9882606.33	10247264	11627277.5	11055008.3	11530968.6	10689551.6	12058376.4	10331094.7	11414648.9	9676246.56	7637623.55	11302397.9	9108803.72	11030076.3	9751915.79	8548200.54	9648740.42	11978909.3	8854530.3
3186192.81	3194033.29	3603024.04	2803914.06	1082797.66	2278988.07	2868722.74	1610492.96	0	2076919.84	1040487.82	902571.607	0	0	2172113.47	3360595.14	3211913.01	0	3620011.63	1739150.64	0
349940560	369185934	449146594	343771527	312199834	321735539	286256213	336260478	290491025	311468273	300078234	289198618	254090504	296310662	326626342	281267670	289814374	350866094	288656029	282212335	268641410
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704517.817	820133.457	628676.042	812685.896	697290.127	1059612.99	650284.118	1383729.44	774163.865	990575.165	626217.496	664304.645	448326.393	805304.584	773588.824	934290.199	829904.702	519241.55	424934.026	955694.113	448983.487
70062.0909	144224.405	104120.124	298873.493	200512.01	611942.371	141459.274	559539.061	369209.793	136357.884	62938.2555	65512.2998	90635.3989	107415.977	425064.829	163068.136	448651.147	98071.9286	44548.5966	234293.285	57831.4191
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21909348.6	39739567.9	36750788.1	27832789.6	26606059	25849053.3	36004283.1	26705404	26859543.7	29741150.1	30555472.3	32869005.8	32903494.3	28470754.6	42466783.9	32044019.1	50917823.1	23989841.7	29430335.1	32234397.9	26167407.8
16570120.6	15759925.5	14302897.2	16283410	21471058.1	19451811.7	18419279.4	16712788	18855388.6	16785903.8	17044075.9	19868720.7	17288044.3	15839326.2	20447394.6	15660729.7	18692191.5	8178454.83	12151240.6	15852038	12457733.1
343847132	436995812	331596437	140719406	182543667	172965049	171659078	143099277	167764680	160249268	132971708	132647080	55936158.6	123859013	144571075	140267320	154126368	49495487.6	63939573.4	119520968	64488034.4
95827753.2	109896697	108879544	119245526	131306633	136119039	125770952	131756718	125269052	117683694	111175309	95566556.6	74799525.1	110134047	93264080.8	116420425	92970258.9	89257767.5	83323636.2	98494553.8	78299034.5
107113023	116057664	100806049	156880030	171126147	160742678	165139907	165412038	170204528	148035930	136819018	127539741	89363318.9	139525473	148219638	151053487	151706467	110661578	112814111	147420140	108296548
10804930.1	12107764.5	9703279.45	28864905.4	31536695.2	27702074	31557976.9	34897082.1	29924446.1	25432770.9	24938432	19339521.4	10916789.1	25964957	28887710.6	31570633.9	34729877.8	22531218.8	16633766.9	27472794.8	18436862.1
119199210	138156879	148757597	151534683	157840421	145304877	146099410	140918710	161854686	142102619	150625648	139844583	119581724	148460310	124294477	154854914	136984505	119221505	136711028	158708842	123890495
41710805.4	47423317.7	40997970.9	68318759.6	74561484	70940361.9	73804671	73238911	71682126.4	63118366.7	60923820	55117827.1	41926860	60334535.7	70618819.2	68966332	83511985.6	50129297.8	50628150.9	67241521.6	51220056.7
122578.449	116673.526	111994.332	108792.671	132317.873	130106.557	141904.115	140600.615	134456.537	125544.157	116237.077	111573.75	47403.2143	117186.931	122898.1	126242.722	129386.975	67114.7478	74342.7413	110926.15	74919.9781
400847.729	457063.318	444329.732	367600.056	355552.509	341325.135	404818.808	369262.855	349138.989	424983.069	407759.579	408471.353	247653.63	337114.185	425636.983	513609.591	412527.49	376861.245	440676.464	399351.432	305864.66
2718397.16	3967645.29	3031260.04	5062539.27	5787786.24	6534474.51	6101667.59	5872377.76	6500183.96	5232555.55	4731094.2	4734084.17	2517052.48	4757359.8	3941604.71	4748516.21	3557483.04	2557230.56	3197559.87	4440623.42	2980895.14
182890.369	177419.621	192472.349	169321.115	151485.602	148539.101	185323.335	334757.816	229223.096	150229.839	115803.184	147965.355	103767.001	138817.124	174715.821	137264.734	201296.612	247073.544	123545.873	169844.387	148770.451
13770.2581	21065.2239	25112.6151	17526.347	7341.34853	13901.5848	13524.2716	27122.9916	14498.1805	17178.7681	15734.9318	12444.7182	19180.4771	6107.35247	20245.0985	8141.30791	31921.1309	11982.8699	1596.08548	6507.08068	5386.84278
39629.9217	60006.4214	34626.1214	40937.0976	34730.2976	34962.8994	22470.5122	29845.2232	22276.9448	21737.3938	19595.5131	31936.483	16250.5099	28936.2589	34686.9872	17757.6743	30017.2865	15098.1938	12643.9594	18434.2099	15597.095
13957.3694	14418.6097	11385.8004	11499.6079	10398.0312	10817.5747	14748.0142	6907.37924	6979.48499	11497.876	10526.5702	15439.1843	6936.51196	13536.7194	11018.5022	9873.4024	13598.612	7563.70932	6774.37837	10530.3971	5438.67379
39664021.7	52981377.4	54517272.3	48245011.4	49685384.3	43941829.1	55260149.3	47308029	45885505.6	45813466.9	43676378.4	40724909.2	34122783.8	40168735.1	53022041.2	46430717.2	65401780	31857200.8	35435013.2	39216297.9	32688103.7
2193900.06	2330122.24	2134318.66	92535.1058	226807.649	145793.445	316594.766	175000.42	224499.504	187595.814	133296.867	160325.267	62021.8833	156024.802	186466.005	104896.269	103592.04	22436.8117	63577.713	49901.347	55859.4972
24652986.8	23383395.3	25240442.8	20996746.9	20242408.2	16792932.1	18826100.6	25489033.6	19452390.1	16522766.9	16582820.9	14903585.5	11733963.9	17698219.2	18733130.5	18372870.4	16667280.9	16007760.8	12997515.3	17515925.1	14856894
414993.096	621545.257	525172.616	1003853.19	1020833.46	1053031.6	1041457.38	1913604.91	2073189.3	921751.125	1228750.92	1093071.92	610867.598	1781128.59	936075.237	788405.165	1016184.45	1256681.25	1005623.2	1412458.65	1166858.99
6058349.43	7191962.6	5255882.56	8754816.4	10612566.4	9484252.06	9815900.55	8820893.5	10559529	9990930.75	8878254.51	7975297.59	5123668.12	9288165.64	8985138.66	9395564.4	9141867.34	4714958.46	5871867.61	9454987.71	5875196.13
3873679.24	3788949.8	3039972.94	3737475.13	3590561.19	2738108.8	3110031.86	3056984.33	2343578.39	2742535.53	2794847.11	2612790.33	1699600.86	3350381.04	3210293.56	3609916.8	3076744.26	2698885.04	2302746.08	3272925.62	2658971.09
32160490	33047097	27224224.9	55263782.9	59920901.7	59423882.4	60213406.3	60066184.8	63360104.7	48505598.5	45612263.9	43191934.3	34035449.9	46859813.9	50801158.4	53200620.5	64844985.9	37048924.5	42204692.4	53657294.9	43145980.3
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302575.051	260155.872	300976.933	425209.737	561869.92	723724.728	572618.497	550725.786	779310.568	123756.367	101058.827	98281.1954	63032.3625	115253.326	80221.8987	277894.848	149679.254	240294.039	228192.385	285399.472	314520.683
298237.409	368773.356	503160.503	379614.334	386053.095	626027.499	537370.944	651133.613	749927.468	338061.524	327556.277	291402.39	398729.468	415725.784	501196.421	419581.442	495750.606	303641.619	339211.394	472151.149	261230.607
28777.2874	39866.7102	33178.9878	88950.2199	113232.653	128447.335	110329.18	109211.34	116264.682	115088.1	87103.6718	78229.4475	54820.1993	100191.272	71449.2739	131946.175	148760.338	69139.1017	65519.6687	131659.264	70846.1032
3057506.81	4649921.44	5500253.07	2390815.93	2556811.25	2652937.87	3695900.96	2565276.75	2268787	2968979.8	2415518.99	2693739.72	1887553.12	2391742.2	3332833.22	3043390.5	4158211.16	2748001.45	2276896.76	2687808.29	2158062.76
8281075.7	10330333.8	8779348.33	11139248.6	11157705.4	9760365.02	11944244.1	8972968.02	9770126.18	13040760.9	10565838.3	8262268.53	6404832.84	8872334.26	12355072.1	11124500.5	14863728.2	7498279.13	8300304.03	10288698.1	7540684.11
467650.809	693891.286	860321.66	393859.708	277793.52	271593.285	442081.001	443085.263	303433.326	312825.302	293778.826	219829.948	126386.081	239724.232	756076.721	300157.352	816257.643	424628.356	273174.086	258605.999	198578.067
552215.472	897353.517	1129662.75	389960.736	341009.02	403775.582	624413.229	467629.47	431076.087	422317.54	421715.966	336375.708	198967.153	318145.599	501012.183	481493.931	636767.24	497177.3	395330.029	372309.36	347313.429
9251864.86	9615136.17	9264499.61	11726922.5	11501690.9	11257383.9	11272195.5	11971276.7	11168834.3	10744927.8	10601437.5	9624306.85	9810259.45	10459258.6	11515859.6	10454399.8	11846219.2	10518467.6	10612548.8	11116451.9	10209077.5
269280.038	412795.17	703586.868	620778.442	733428.146	614591.281	669390.403	1190194.65	867968.993	479494.376	506634.36	471651.333	244470.231	637583.378	500758.227	351171.043	546390.39	366633.698	243254.853	377148.957	290306.074
788539.106	929307.369	932843.968	1958736.07	2245339.03	2513656.26	2332137.28	2467028.68	2328015.67	2277387.85	1645052.96	1516532.09	841981.793	1945403.27	1955631.15	2436866.92	2459013.28	1244810.16	1247073.46	2372260.58	1117132.05
29807030.7	32366519.2	27419603.8	58367608.5	62144736.8	57178339.9	60470278.1	61368011.7	59125355.4	51197889.6	51741824.6	45615718.4	33044643.6	52031719.7	58973704.8	55837067.3	66140675.6	43357078.7	41697607.5	59687661.2	42721395.3
455491.551	645118.422	671003.765	451798.106	574798.71	581721.753	743919.292	694909.485	567448.987	659533.252	683900.671	645094.078	412890.185	742004.056	1035352.77	841765.022	1305285.32	1004873.89	581617.763	855182.074	563712.669
203864.858	235340.384	198001.159	362360.907	412630.749	447617.904	465202.349	537004.886	460628.547	593856.901	540807.442	526952.775	437225.781	576882.96	584432.7	646029.881	976769.959	734846.028	535714.183	780106.195	450559.31
17652946.2	20292215.2	18473244.9	25668065.7	28495513.9	26151529.5	26499098.2	26501699	26008439.3	22149526.6	22647912.1	19477960.9	14427751.2	23190794.4	23811090.4	24295559	23042211.6	19241239	18535209.4	24068965.6	18728544.2
33571360	37021737.1	32336573.3	56939277.1	61071851.4	56403825.5	59433554.5	60293553.7	57599197.5	52320449.2	50551653.9	44252211	34359640.1	51259778.5	59129582.4	57696377.6	69627186.7	45490100.3	44346249.5	58583078.8	44589588.5
329508.807	1012717.87	1048458.18	668457.322	703085.202	1067505.93	1103939.52	943045.914	753214.655	582144.05	429195.783	614669.393	364379.292	615912.533	923494.993	892187.068	1106794.77	590012.778	505645.211	767455.132	490745.558
11158.9641	33164.5003	35893.7573	75831.7681	32382.2984	74082.5435	43477.049	130363.392	64932.7668	27702.5191	9949.73403	16185.8359	22851.374	16341.8223	146846.38	32100.57	154708.378	26828.2415	17109.3982	45775.0654	13222.891
1534496.79	2641624.83	2059398.96	2075533.44	2590793.81	2472008.46	3012963.7	2713602.99	2976649.19	2513505.6	2384270.26	2365200.68	1724843.98	2760100.41	2969127.94	2894703.29	3522524.44	1722547.52	1709991.41	3010379.67	1935868.53
426731.242	858312.482	715768.815	397971.411	518888.913	566677.964	751028.139	569420.417	650899.802	499719.434	431407.447	613193.652	435541.487	614415.852	770512.931	649248.355	920963.42	346957.376	352649.85	649069.192	382101.971
113806664	127400532	110607868	204471908	208559081	192303042	203783059	219522114	202160453	171178733	163405165	147946040	91338674.1	164303865	199373448	192770898	218505729	149581053	141159258	190293439	146409856