

## Legends for Supplemental Information

**Supplemental Figure 1.** Correlation plots between biological replicates in the samples from  $1\alpha,25(\text{OH})_2\text{D}_3$ -treated zebrafish on day 4.

**Supplemental Figure 2:** Glycine, serine and threonine metabolism pathway is significantly altered by  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment on day 6 (120h of  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment). RNAs increased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment (compared with vehicle) are indicated by red “up” arrows, and RNAs decreased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment are indicated by blue “down” arrows.

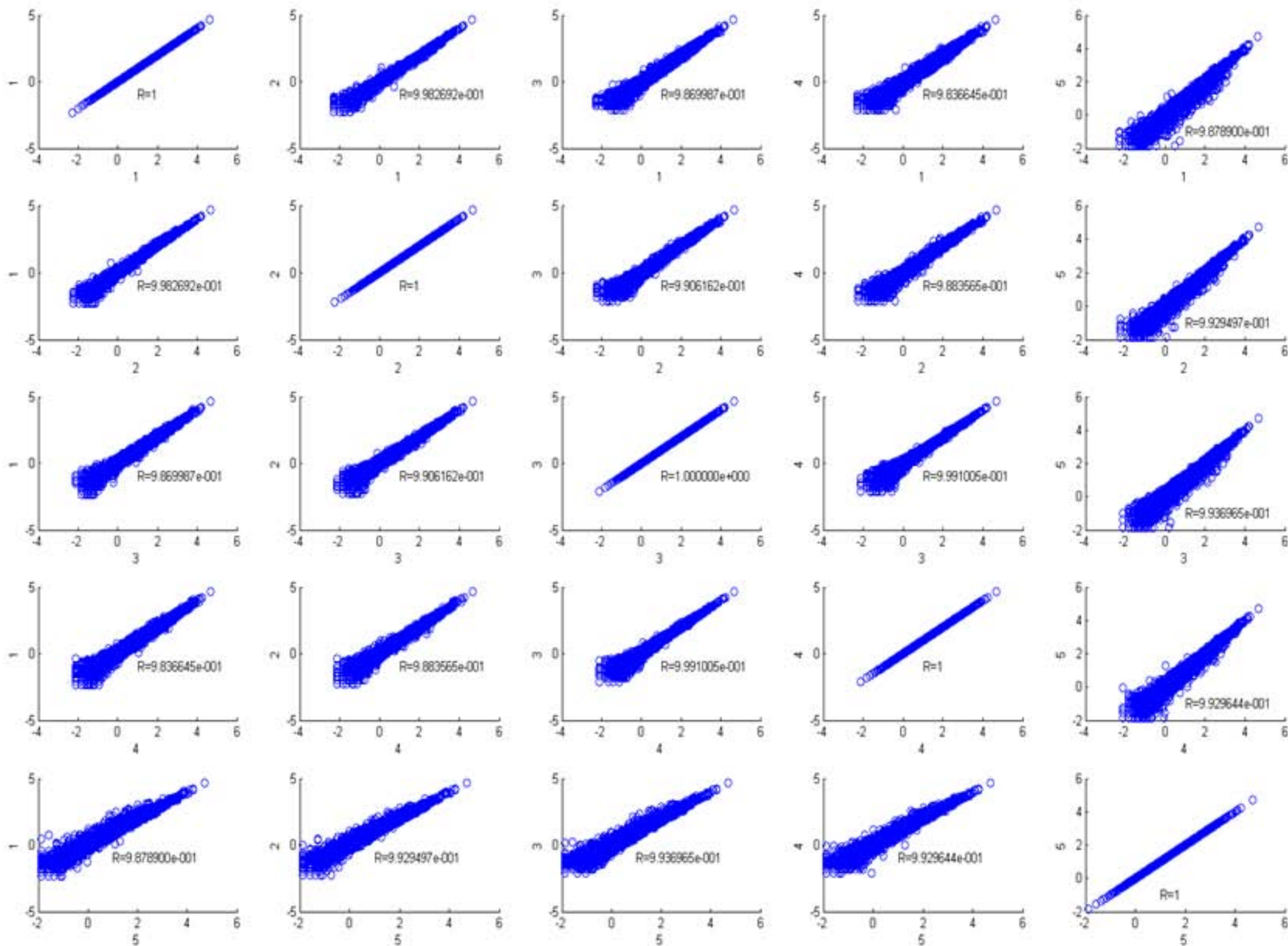
**Supplemental Figure 3:** The fatty acid metabolism pathway is significantly altered by  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment on day 6 (120h of  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment). RNAs increased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment (compared with vehicle) are indicated by red “up” arrows, and RNAs decreased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment are indicated by blue “down” arrows.

**Supplemental Figure 4:** Retinol metabolism pathway is significantly altered by  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment on day 6 (120h of  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment). RNAs increased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment (compared with vehicle) are indicated by red “up” arrows, and RNAs decreased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment are indicated by blue “down” arrows.

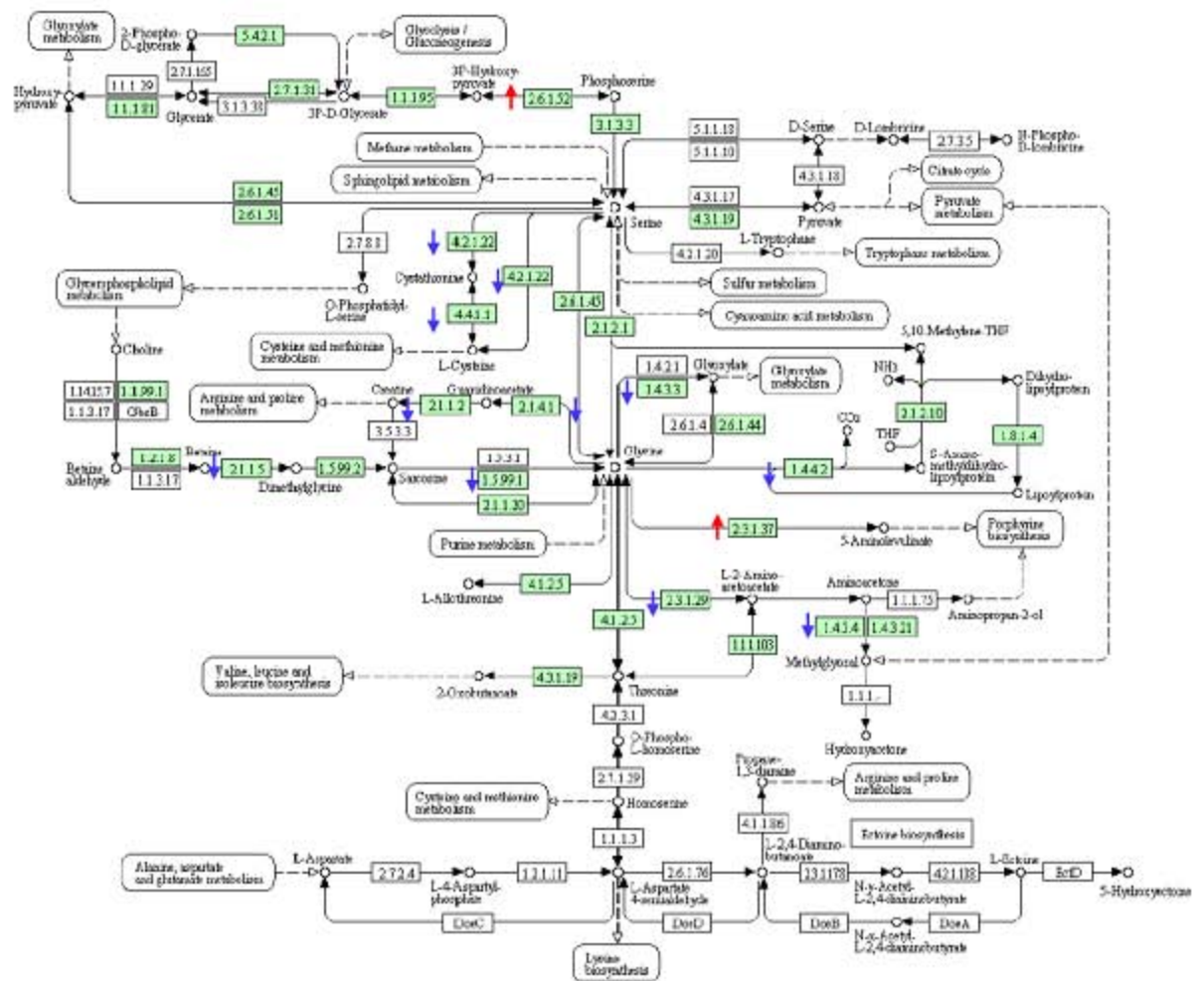
**Supplemental Figure 5.** Peroxisome proliferator activator receptor pathway is significantly altered by  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment on day 7 (144h of  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment). RNAs increased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment (compared with vehicle) are indicated by red “up” arrows, and RNAs decreased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment are indicated by blue “down” arrows.

**Supplemental Figure 6:** Drug metabolism pathways are significantly altered by  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment on day 7 (144h of  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment). RNAs increased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment (compared with vehicle) are indicated by red “up” arrows, and RNAs decreased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment are indicated by blue “down” arrows.

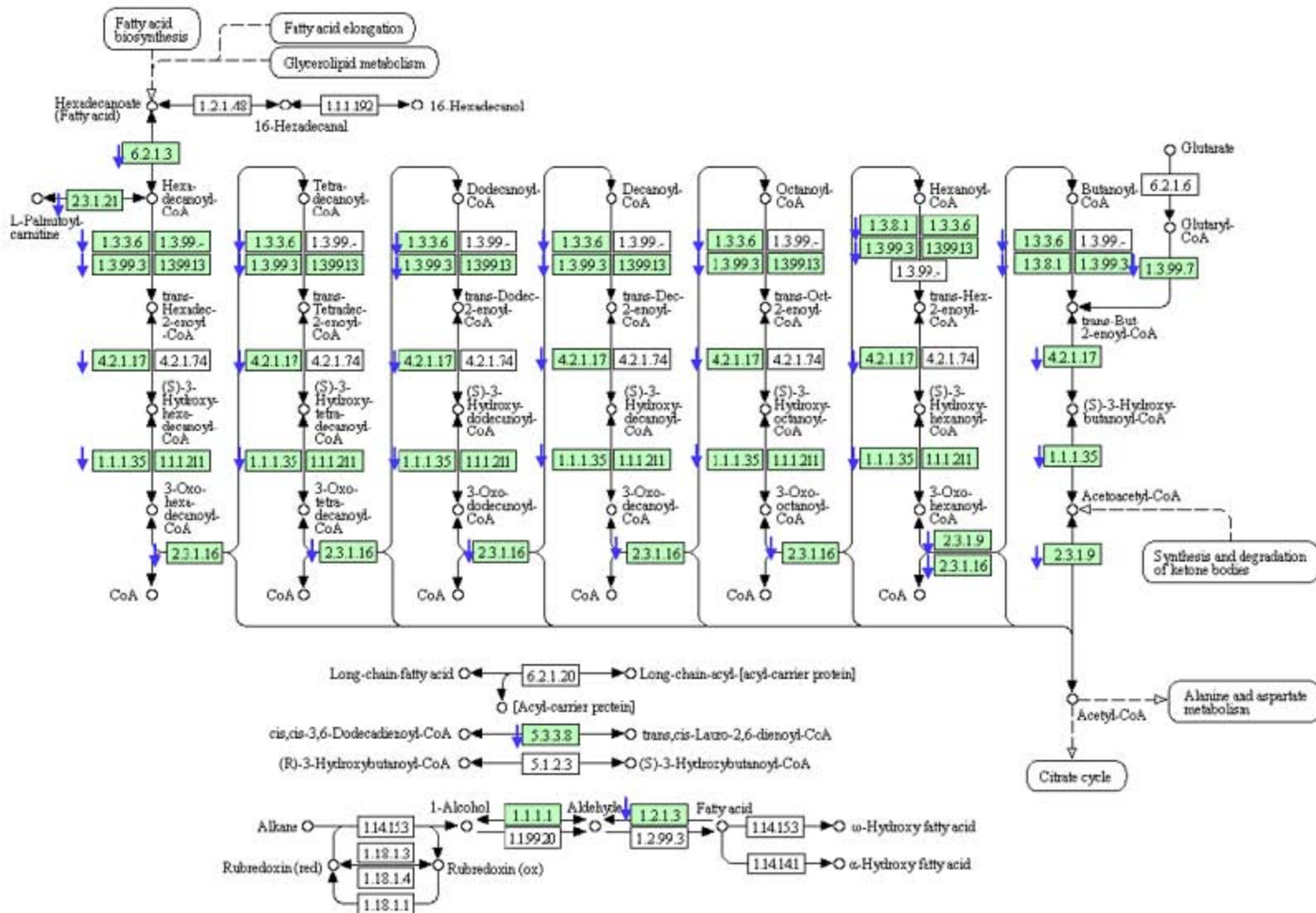
**Supplemental Figure 7:** The fatty acid metabolism pathway is significantly altered by  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment on day 7 (144h of  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment). RNAs increased following  $1\alpha,25(\text{OH})_2\text{D}_3$  treatment (compared with vehicle) are



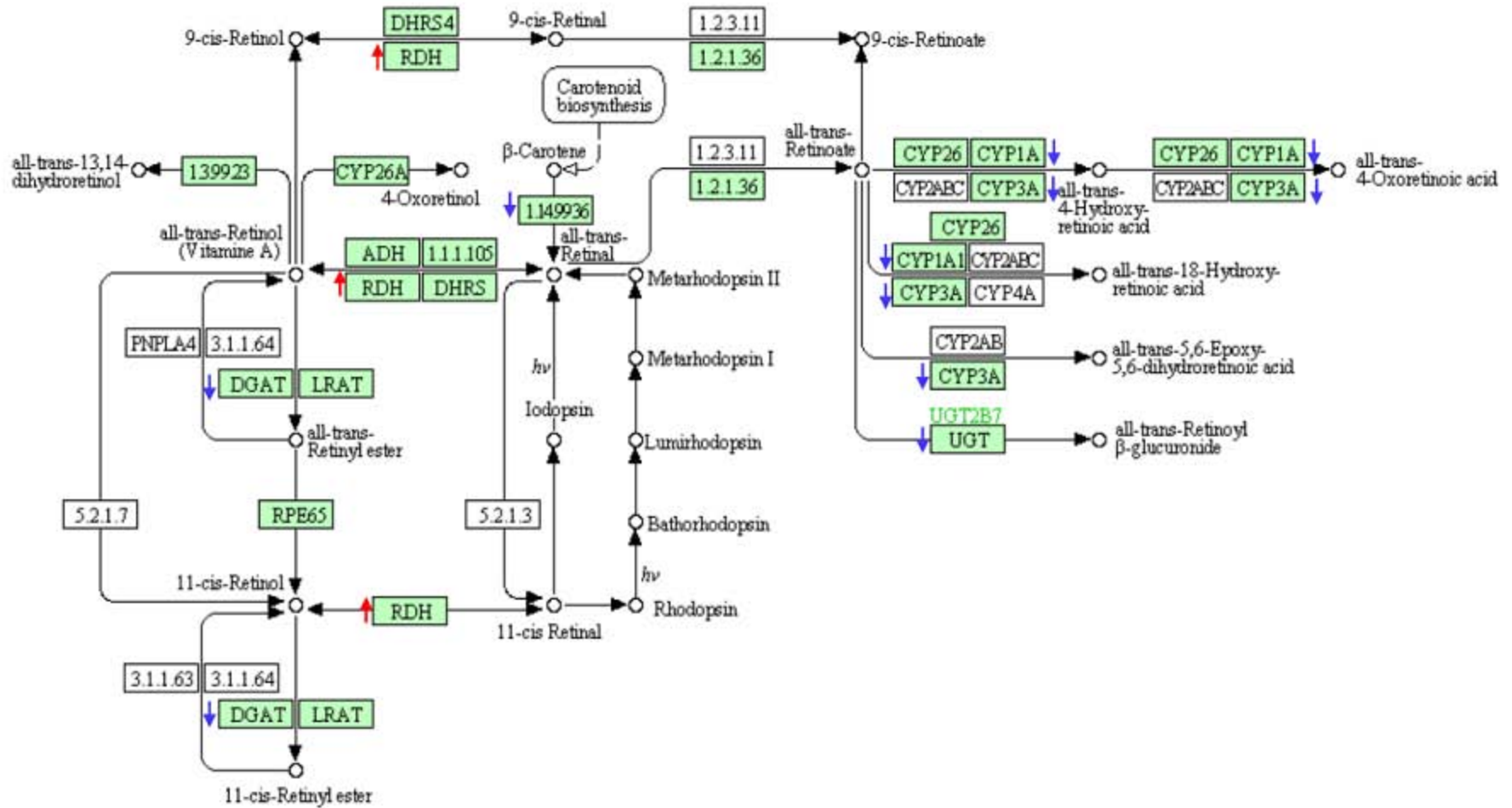
GLYCINE, SERINE AND THREONINE METABOLISM



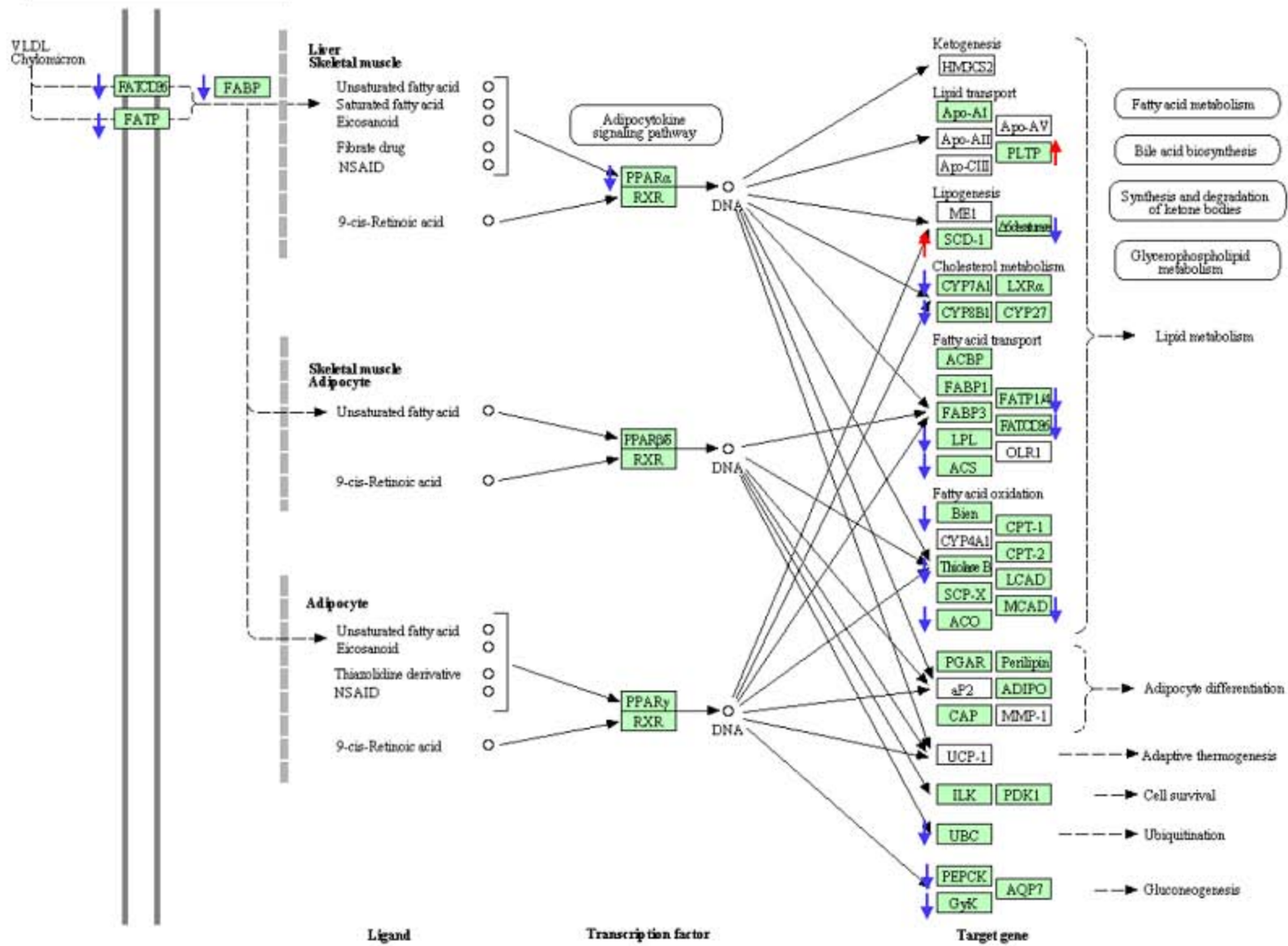
# FATTY ACID METABOLISM



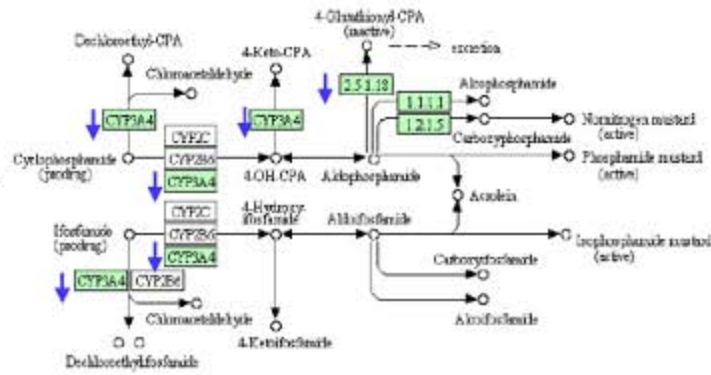
# RETINOL METABOLISM IN ANIMALS



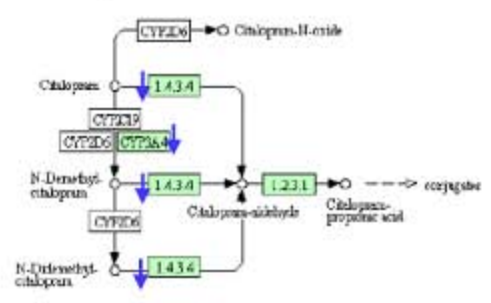
# PPAR SIGNALING PATHWAY



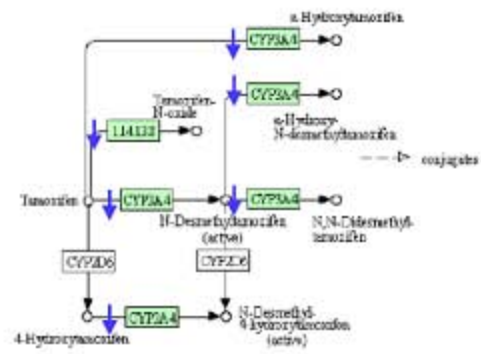
### Cyclophosphamide & Ifosfamide



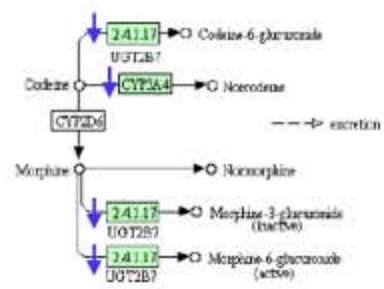
### Citalopram



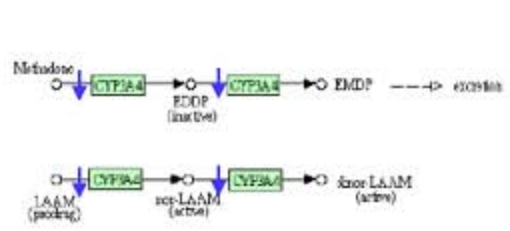
### Tamoxifen



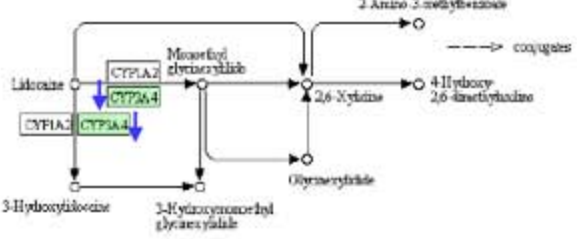
### Codaine & Morphine



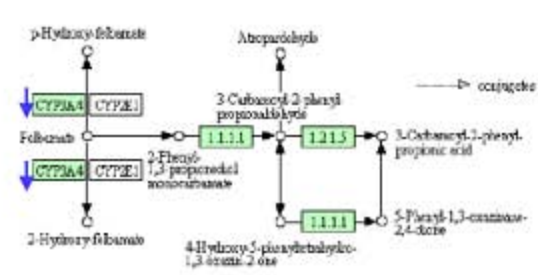
### Metadone



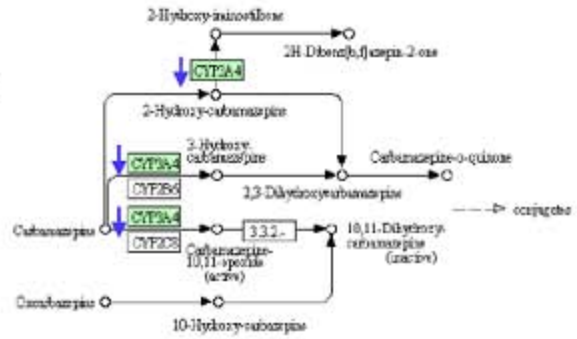
### Lidocaine



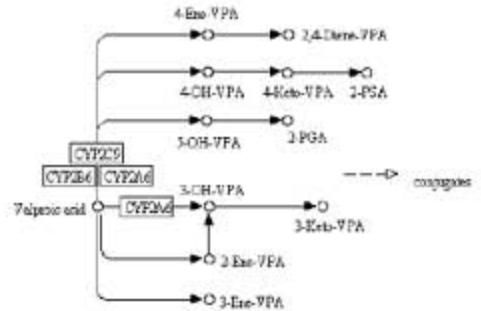
### Felbamate



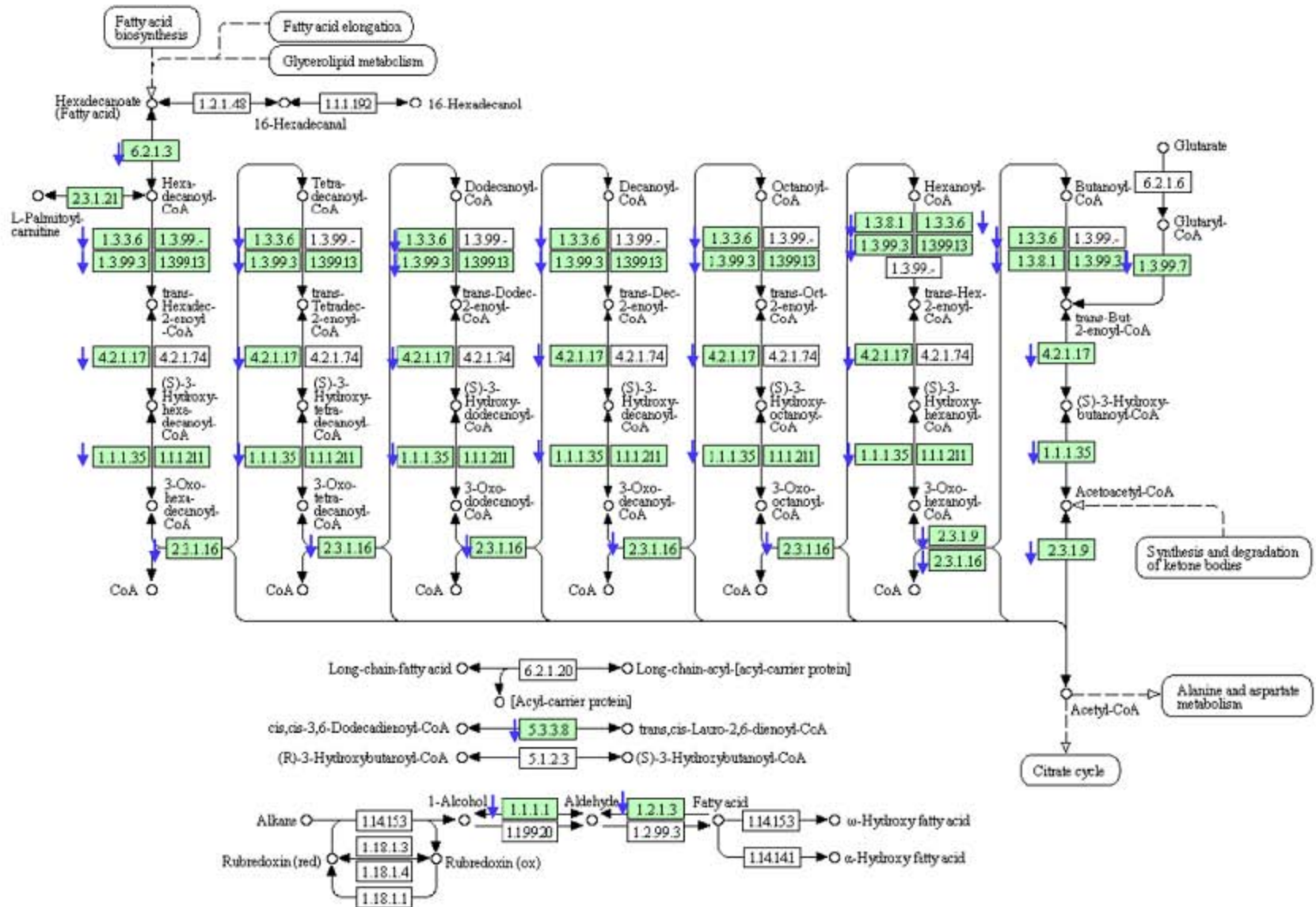
### Carbamazepine & Oxcarbazepine



### Valproic acid



# FATTY ACID METABOLISM







## Supplemental Table Legends

**Supplemental Table 1.** List of genes in Day 4 zebrafish larvae following treatment with  $1\alpha,25(\text{OH})_2\text{D}_3$  or vehicle.

Treatment time = 72 h.

**Supplemental Table 2.** List of genes in Day 6 zebrafish larvae following treatment with  $1\alpha,25(\text{OH})_2\text{D}_3$  or vehicle.

Treatment time = 120 h.

**Supplemental Table 3.** List of genes in Day 7 zebrafish larvae following treatment with  $1\alpha,25(\text{OH})_2\text{D}_3$  or vehicle.

Treatment time = 144 h.

**Supplemental Table 4.** List of genes in Day 7 zebrafish larvae following treatment with  $1\alpha,25(\text{OH})_2\text{D}_3$  or vehicle.

Treatment time = 24 h.

**Supplemental Table 5.** Differentially expressed genes in Day 7 zebrafish larvae following treatment with  $1\alpha,25(\text{OH})_2\text{D}_3$  for 24 h or 144 h.

Gene Name	Ethanol-1	Ethanol-2	Ethanol-3	Ethanol-4	Ethanol-5	VD-1	VD-2	VD-3
cyp24a1	10064	7687	5025	5355	1216	5704	37596	56659
LOC562139	34255	13052	17218	8047	544	213	6334	2359
zgc-136461	56087	21911	27510	13015	998	361	10678	3820
igfbp1b	7665	5387	9621	8008	1077	2869	13930	19451
zgc-92590	1054	77	248	124	2	14	42	11
ela2	82547	45199	50022	31478	2948	1692	18530	11470
zgc-113413	5692	7099	5211	6014	4264	1897	2275	2710
ela3l	64625	29180	31992	19822	2481	1366	15419	10462
si-ch211-234p6.12	4396	3658	2333	1521	450	441	1281	857
zgc-153932	2568	1951	2408	1274	366	850	5535	4917
tat	6029	4007	3647	2683	769	1909	8477	9557
zgc-174689	5164	6487	4135	4507	3874	1768	2068	2508
zgc-92137	25875	8778	8344	4962	582	237	6470	3912
itln3	889	1568	351	224	120	42	356	113
klf11a	10634	10334	8995	8641	3858	5352	17621	26241
amy2a	27794	12274	9635	5549	782	504	7967	5314
ela2l	105311	47527	54331	36807	3103	1417	29381	19222
cyt1l	200309	198406	182198	180133	117268	66173	91147	101743
lpin1	33905	18051	15521	11115	3937	2552	13464	9044
cpa4	19766	11604	9374	6100	2021	1295	6823	5976
zgc-114201	12990	9242	8331	5648	1383	1112	6060	4578
pparaa	4965	3903	4001	3724	1475	920	2094	1980
zgc-172140	89	147	161	69	7	74	298	292
cish	5488	2536	1648	1116	398	329	1956	1449
LOC568900	13496	6612	5937	5096	546	355	4502	3399
pnp4b	12823	6930	5592	3671	360	286	4671	3358
igfbp1a	12971	8603	9152	9293	1638	2964	12574	16544
zgc-194221	89	66	113	80	34	0	9	13
slc25a29	3410	2829	2138	1772	605	427	1657	1084
he1a	389	647	0	145	1391	1027	6	7
slc34a2a	8061	3704	3794	2343	619	525	3118	2457
tfa	263278	194264	151037	126607	51690	41578	112484	119857
tfcp2l1	988	846	605	527	118	84	408	376
sult1st6	3110	2352	1641	1485	404	335	1417	1419
elna	3777	4039	4214	4231	2179	3274	5382	6478
bcl6ab	3501	3747	2413	2352	1593	1691	4933	6722
cpa5	125680	67069	63958	48518	9472	5991	49563	39668
fabp11b	687	673	532	504	627	636	1210	1659
rh50	1036	399	495	253	22	8	318	204
zgc-154142	11382	4606	4538	2412	507	467	4039	3221
stc2	2563	2166	1607	1468	963	815	1210	1191
fabp10a	36685	22486	12540	11585	4214	3639	16596	12078
fep15	9203	5943	4940	4424	1256	843	4046	3457
sc4mol	7822	4158	3941	2986	332	463	2483	3553
fosb	1166	307	426	759	35	54	333	279
ctrl	93110	49248	52204	39090	7339	5289	36311	26634
rrm2	5760	5556	2878	2545	1602	2525	7086	9751
cyp2ad2	7731	2939	2168	1528	297	222	2773	2051
c3b	14479	11015	9470	7003	1998	2286	7965	5598
zgc-56382	13291	10179	11648	8072	2831	4135	17140	14580

zgc-111983	15744	12123	13145	9396	3501	5171	20238	17065
zgc-92851	1083	539	645	2234	194	256	461	606
zgc-172079	6923	4545	3801	2602	1280	1138	3148	3074
ldlr	14150	9123	8940	7014	1615	1603	6371	6407
habp2	2937	1968	1592	1171	307	385	1223	1041
si-dkey-22i16.3	5689	6289	6173	6385	2857	3692	7357	10111
c6ast4	31939	15084	16697	9168	768	930	13627	11231
zgc-92041	222693	136352	144624	107812	18144	10266	94794	72804
cfhl1	442	354	387	343	96	88	210	170
abcg4b	377	357	212	234	137	225	474	761
pmelb	14237	13797	9733	9978	8037	9168	20055	24673
LOC563738	5737	4463	3194	3064	1183	1351	2531	3029
si-dkey-31f5.1	8501	5031	4721	2965	954	933	3511	3207
dpys	5132	3772	2582	2555	1017	884	2527	2486
vdrb	5445	4741	2710	2415	1439	997	3160	2444
zgc-136854	14	3	0	2	5	3	33	45
si-ch211-203l9.3	3718	3645	2949	3585	1136	668	2316	1583
si-ch73-252g14.4	2563	1083	1476	735	171	90	816	861
klf11b	6573	6013	5324	5998	2203	2730	7599	10861
si-dkey-61p9.11	155	306	190	42	54	75	476	283
si-ch211-284e20.8	6295	5057	3648	3997	1340	1440	2816	3516
vdra	2904	2609	2535	2451	893	520	1579	1104
rhcg1	3650	3108	2041	1728	305	401	5317	3956
zgc-112282	3951	2078	1186	738	166	188	1613	1275
hspb9	5800	3153	1666	1170	738	1122	5204	5965
psat1	7540	9814	4726	5443	4431	6473	9566	14528
zgc-165502	4201	2766	3252	2311	551	628	1848	1753

VD-4	VD-5	foldChang	pval	padj
37201	45378	7.242867	6.35E-61	8.89E-57
2297	2482	0.220876	5.96E-44	4.17E-40
3546	3853	0.218593	2.66E-42	1.24E-38
35962	35648	4.088364	3.78E-32	1.32E-28
0	29	0.087832	4.21E-27	1.18E-23
13991	16192	0.357113	2.47E-22	5.76E-19
791	1460	0.358294	1.69E-21	3.39E-18
8563	9001	0.361608	2.47E-21	3.76E-18
361	652	0.355977	2.69E-21	3.76E-18
4278	5403	2.828004	2.43E-21	3.76E-18
10357	11125	2.938766	7.54E-21	9.60E-18
608	1160	0.372568	6.24E-20	7.28E-17
3163	3857	0.443534	9.01E-17	9.71E-14
78	122	0.268586	2.96E-16	2.96E-13
16592	21261	2.252876	3.83E-14	3.58E-11
3677	5651	0.503531	1.19E-12	1.05E-09
23943	25892	0.495826	4.39E-12	3.62E-09
62219	69261	0.503619	7.04E-11	5.48E-08
4892	6003	0.505861	8.85E-11	6.53E-08
3577	4278	0.530239	1.82E-10	1.27E-07
2648	3332	0.545415	2.10E-09	1.40E-06
1696	1816	0.547814	2.70E-09	1.72E-06
360	297	3.383745	3.03E-09	1.85E-06
548	682	0.523096	3.39E-09	1.98E-06
3297	3844	0.591077	1.06E-08	5.93E-06
2702	3501	0.599032	2.79E-08	1.51E-05
16880	18587	1.930817	3.43E-08	1.78E-05
22	14	0.168922	5.80E-08	2.90E-05
802	1181	0.563164	7.15E-08	3.45E-05
8	51	0.594093	7.95E-08	3.59E-05
1394	1729	0.586784	7.85E-08	3.59E-05
47666	71230	0.5748	9.61E-08	4.08E-05
101	216	0.429284	9.52E-08	4.08E-05
465	594	0.530002	1.14E-07	4.70E-05
5469	7938	1.741749	1.55E-07	6.21E-05
3207	4227	1.642792	2.58E-07	9.97E-05
27067	34049	0.581819	2.63E-07	9.97E-05
785	829	1.711324	5.06E-07	0.000182
100	180	0.422259	5.03E-07	0.000182
1964	2587	0.630744	6.20E-07	0.000217
461	719	0.587003	8.07E-07	0.000276
6013	7282	0.6163	1.32E-06	0.000439
2487	3035	0.629912	1.79E-06	0.000582
1485	2302	0.627279	2.16E-06	0.000688
192	258	0.491255	2.32E-06	0.000721
25308	32324	0.626997	2.51E-06	0.000765
3431	3610	1.600788	3.94E-06	0.001175
1329	1425	0.644863	4.17E-06	0.001216
3619	4526	0.646717	4.35E-06	0.001244
13984	17464	1.693361	5.01E-06	0.001403

16125	20196	1.694319	6.01E-06	0.001621
418	551	0.561058	6.02E-06	0.001621
1370	1855	0.644065	7.63E-06	0.002016
3392	4899	0.645655	8.78E-06	0.002278
621	871	0.629058	9.00E-06	0.002292
7788	10171	1.59307	9.29E-06	0.002323
6718	7876	0.642659	1.08E-05	0.002643
75260	93720	0.655607	1.26E-05	0.003045
115	71	0.470725	1.40E-05	0.003313
298	550	1.948714	1.63E-05	0.003816
11858	13783	1.525965	1.92E-05	0.004397
1361	1689	0.671117	1.99E-05	0.004504
2027	2942	0.681271	2.32E-05	0.005162
1218	1380	0.65387	2.72E-05	0.005847
1225	1683	0.650174	2.76E-05	0.005847
22	37	6.001357	2.70E-05	0.005847
1681	2283	0.653488	2.87E-05	0.005911
742	611	0.616764	2.86E-05	0.005911
6492	8395	1.530532	3.14E-05	0.00629
308	274	2.181968	3.12E-05	0.00629
1686	2240	0.677538	3.49E-05	0.006875
1430	1788	0.659446	3.79E-05	0.00737
2114	3104	1.557107	4.29E-05	0.008174
679	589	0.643904	4.32E-05	0.008174
2263	2536	1.582671	4.84E-05	0.009
5160	8227	1.520551	4.88E-05	0.009
1648	1584	0.688154	5.27E-05	0.00958

Gene Name	Ethanol-1	Ethanol-2	Ethanol-3	Ethanol-4	Ethanol-5	VD-1	VD-2	VD-3
cyp24a1	39899	31619	26113	21850	6307	43718	241617	185018
zgc-92590	2725	2278	3002	3582	569	28	269	123
igfbp1b	25774	27941	27537	27527	5527	32010	176932	140394
zgc-113413	1276	2330	1511	1388	993	160	112	138
ces3	6324	9622	7135	7148	1977	1176	1046	1371
zgc-174689	1186	2095	1327	1177	852	143	106	129
klf11a	3630	6315	6248	5418	2842	9203	29305	24979
zgc-154142	15372	22683	19542	16927	4894	2066	3987	4226
c3b	9970	20194	16338	13831	4409	1853	4522	2850
ahsg	4670	5152	5166	4449	1444	620	871	672
hsp70l	250	582	403	530	649	260	2102	615
fabp1b.1	8459	13304	11485	14526	11007	4983	2114	2459
rh50	1914	2508	2285	2075	797	236	420	315
cyt1l	164218	234502	179875	177209	68589	25964	32807	46508
zgc-112992	774	1378	1095	1099	798	314	134	145
si-ch211-234p6.12	8011	8155	7068	5219	3315	1440	1986	1473
tfa	106074	214779	175398	153969	90677	32656	49814	36350
si-dkey-14d8.7	1141	1605	1197	1121	284	53	240	144
LOC562139	88799	113643	114736	82095	22609	5499	30700	17927
opn1mw1	46802	69702	64926	58368	33435	19822	14773	14573
cyp4v2	8320	9844	7366	7844	2887	1462	2605	2569
ugt1a5	6011	8169	6534	6292	3643	1892	1866	2165
zgc-136461	143551	185929	185384	131785	36859	9505	51018	29800
itln3	335	4513	3049	1762	474	14	1239	911
cyp2ad2	11078	17699	14047	10640	3577	1872	4393	4749
ugt1ab	7892	10617	8302	8007	4059	2328	2691	2988
ugt1a1	9189	12262	9792	9181	5259	3124	3117	3404
ugt1a2	5800	7845	6176	5965	3447	1907	1905	2193
ugt1a6	5636	7540	6002	5776	3397	1843	1855	2134
ugt1a7	6562	8757	7286	6660	4077	2223	2216	2531
fabp10a	75018	91613	72515	62681	30768	17490	22185	18483
ugt1a4	5952	8154	6506	6162	3655	1992	2025	2324
habp2	2488	3853	3463	3025	1635	978	906	784
fabp2	45641	60119	49820	45567	25639	14510	15245	14772
f7i	1630	2263	2346	1786	921	495	505	435
zgc-161979	20368	34024	29578	28779	13945	7185	8244	9533
elna	1277	2316	2320	2059	873	2299	6071	5271
zgc-153932	2442	4064	2357	2588	3504	5714	9515	8425
ela3l	197407	245495	225166	163390	48227	15101	65354	46232
zgc-172140	63	163	64	59	207	608	701	303
cyp2k18	1213	1644	1527	1095	420	209	288	308
dpys	3950	5151	4775	4533	1720	1199	1297	1383
tat	40891	30646	27902	24009	6557	23709	99622	90206
zgc-194887	1285	1923	1910	2244	520	274	456	464
pklr	70466	76848	79732	79189	33990	10110	21919	17702
comtd1	848	1284	1255	1565	633	367	368	316
ela2	220364	262404	266491	179293	52984	15870	81182	48117
zgc-112146	1289	2188	1529	1540	709	312	510	430
zgc-92137	78420	107114	91328	61669	16945	7472	27977	28542
LOC570613	2604	4001	3828	3370	1784	1027	1097	1115

ins	1873	2612	2394	2063	703	382	691	695
opn1sw2	59891	81512	75012	64155	25470	20597	24797	27204
zgc-136854	14	80	13	3	31	85	309	97
zgc-172225	1477	2069	1454	1639	211	220	457	502
si-ch211-234p6.13	1455	2035	1420	1626	203	213	454	498
ebi3	626	1034	880	983	514	117	200	265
zgc-165502	3809	4656	5217	4851	2990	1334	1491	1304
he1a	2	282	12	30	255	21	7	1
igfbp1a	18728	23736	22992	25098	7999	13749	64860	52424
agxt2l1	6297	8435	7432	6536	2573	1694	2651	2699
slc1a4	1723	2800	2489	2190	997	1580	6623	4243
cyp2y3	12511	16623	13523	10199	4497	2915	5082	5169
elovl2	1840	2528	2141	2244	714	359	658	596
gip	540609	720189	700685	772883	377301	258735	230316	199454
cyp2x9	2833	3707	2882	2518	1127	909	1089	1060
zgc-110377	3418	5013	3711	3163	1198	1081	1560	1478
adm2	278	573	518	503	174	389	1994	1592
zgc-171537	1343	1803	1248	1301	142	190	340	658
si-ch73-46j18.5	5151	7284	6454	5939	1642	3969	17876	14926
zgc-110064	24256	47385	41772	42997	19083	17081	11695	18889
aldh1l1	14112	16762	12227	10685	4968	3164	5802	5452
hspb9	2402	3797	3051	2457	554	1016	8997	7511
asah2	12477	15912	12333	9501	3909	2833	5252	4565
opn1lw2	51101	68567	69494	58579	33124	23195	25099	25522
pmepa1	106844	144676	166406	188396	95758	68204	47235	44769
zgc-174006	121	184	183	229	112	74	500	237
opn1sw1	244564	350986	314777	261697	116582	86563	127661	134584
dio1	3504	4582	4154	2979	1189	861	1594	1559
slc34a2a	6288	8829	7181	7101	3268	1262	2807	3127
lepa	29	74	71	20	19	35	451	268
LOC564844	1348	1550	1527	1365	636	319	465	491
zgc-92406	1562	2377	1596	1477	554	411	702	597
akr1a1a	311	481	511	507	315	47	154	108
angptl3	3098	4591	3246	3060	1144	842	1528	1396
vgll4	145152	195713	217307	245305	120335	88650	69036	62315
rnasel3	739	1639	1829	1359	613	228	644	541
mep1b	5232	4852	4290	3599	985	849	2008	1604
zgc-77778	1789	2262	2414	2130	591	1777	4968	4938
ugt5b3	1543	2152	1854	1585	875	440	676	820
cyp2aa8	436	1632	1246	911	529	485	165	542
abcg2b	1369	2033	1830	1502	987	493	588	493
cyp2k6	447	738	453	375	240	260	1588	1170
abp1	14571	19840	17246	13769	6059	3783	7916	7116
zgc-112210	623	909	829	669	448	226	196	262
slc16a12b	6852	9689	8262	8460	2424	4936	19215	18156
LOC568900	17552	21469	22390	18016	6393	2799	9415	7440
ugt5b4	1591	2414	2038	1754	632	409	810	789
zgc-136909	1167	1867	1703	1841	562	217	594	635
zgc-154020	964	7101	2551	1568	881	1592	5989	3842
stc2	2584	3144	2575	2281	986	405	1010	963
hmga1b	5850	7317	6433	5524	2075	5646	15839	13825



rbp2a	13421	19478	14173	14329	7213	5569	6815	6763
zgc-100868	7082	13684	6744	6002	6453	7816	18302	14803
LOC100005630	1970	2865	2489	2133	1004	603	837	975
cx32.3	3516	5175	4414	4066	1713	1043	1939	1746
rbp2b	1935	2754	2220	2195	817	980	841	1063
sult1st2	1517	2257	1620	1365	550	329	773	641
zgc-63614	1598	1959	1353	1174	426	333	636	586
igfbp2a	6382	9648	8826	8547	3946	2647	3406	3714
hsp70	148	321	360	285	261	240	717	361
pm20d1.1	7003	8342	7562	6033	2428	1739	3611	3060
zgc-174688	260	317	171	151	63	45	39	36
faah2b	2067	3092	2361	2387	1052	767	1095	1069
zgc-153913	1691	3114	2617	2397	938	719	1119	1186
pfkfb3	12935	19186	14796	11083	2709	6942	40415	35753
aqp8a.2	4157	5492	5048	4514	2344	1391	2306	2111
zgc-153846	2160	2070	1663	1471	533	1098	4154	3770
si-dkey-14d8.6	9184	11799	9550	7546	1714	1299	5367	3516
ndrg1l	8290	11672	10352	8171	2059	4690	21794	18536
ctsb	6367	8007	8620	6946	2813	1726	3667	3018
pygl	7289	7326	7057	6830	2729	2553	3111	2749
crygmx1	234	231	237	144	148	396	795	741
upb1	3048	4041	3715	3626	1530	999	1775	1551
cpa5	231875	279079	281534	175704	52348	29304	117532	95869
zgc-198195	1880	2502	2079	1642	597	327	921	886
igf2b	5345	7332	5396	4639	1455	2220	13832	11667
cat	19252	27859	25541	22075	5912	4836	12538	11564
cish	5285	8562	7475	6295	1710	672	3743	3397
cfhl2	442	994	806	469	419	175	240	273
zgc-77938	3904	5210	4882	4485	2618	1695	2198	2095
ela2l	305859	340358	346961	261409	73515	24720	140493	99508
dpyd	19392	26263	22211	21138	8635	5219	11622	9751
cyp3c4	1542	1715	1276	942	440	328	611	602
gc	19308	23437	20640	17028	5547	6527	10264	10279
zgc-162356	15702	20142	15912	13683	5834	3726	8589	7984
abcg8	1808	1997	1738	1532	933	473	886	625
ezh2	1168	2402	2162	1837	1051	1894	4629	4027
LOC100007703	39	171	80	118	13	2	4	8
rdh1	9914	12157	11599	9430	3735	3006	5695	4895
si-dkey-45m5.4	894	1249	1345	1085	419	684	2663	2403
crygm1	251	244	173	90	64	142	644	604
LOC564868	2915	2438	1989	1977	1385	1876	5416	3844
agmat	2929	4079	4139	3238	1056	669	1743	1806
cd36	27156	32871	27301	21687	7548	5590	13867	12464
slc2a2	7754	10696	8463	8133	2820	1740	4283	3871
gpx4a	35213	46415	35317	30529	12429	9354	20138	17872
pdzd3b	852	1352	1153	1100	773	349	515	352
si-dkey-24l11.1	4140	5558	4706	3870	1834	1021	2360	2354
cp	27645	47031	44899	30190	14595	11222	20909	18095
ctsl.1	32891	44974	51199	40852	18128	10512	20524	16798
zgc-110409	6024	8268	7763	6400	4265	2192	3837	3420
si-ch211-284e20.8	2168	3440	3460	3118	1506	786	1558	1450

zgc-112282	5435	8414	5321	4514	1766	992	3682	2932
si-ch211-12e13.7	730	371	359	361	52	36	176	139
grk7a	40669	54478	44316	39400	13520	12930	24118	25669
acox1	9461	14601	12342	9969	4702	3109	5859	6046
zgc-110200	6539	9197	7629	7476	3337	1731	4967	4095
pck2	27078	38553	31363	27470	13200	8356	16259	16484
grk1b	5059	6316	5309	4365	2376	2104	3134	2632
cldn5b	1416	2557	2185	1808	684	1236	4282	4659
zgc-153102	1097	910	781	732	527	695	2135	1526
zgc-153920	44	44	37	60	58	123	295	209
ulk1a	4324	5385	4497	3698	1096	2412	9854	8173
zgc-103559	1226	1701	1527	1202	659	365	632	624
pparaa	7543	10073	9319	9002	2932	1292	4472	4180
LOC563738	2160	3301	3136	2720	1391	716	1477	1322
zgc-171226	282	246	159	87	178	149	637	613
cyt1	420217	554820	462018	477169	152597	88961	208879	240815
acad11	2217	3604	3426	3039	1604	967	1630	1550
c9	11341	16001	16559	12906	4548	5080	8072	6708
si-dkeyp-1h4.3	120	137	155	90	116	142	418	425
LOC796447	9980	14002	13233	13153	4390	10567	25431	23920
xpnpep2	3971	5247	5039	3814	1470	1259	2505	1943
zgc-153896	1261	1946	1547	1415	779	418	749	748
si-ch211-133l5.7	4298	5629	4078	3154	1180	1026	2296	2310
LOC100002960	2464	3659	3163	3587	1825	1431	1541	1533
tdo2a	10451	14623	12191	10925	3851	3402	6389	5256
zgc-172079	4122	6382	6429	4818	2200	1432	3016	2622
si-ch211-244a23.1	1280	1859	1379	1815	748	1242	3545	3371
ugt5d1	573	810	582	637	432	151	270	279
aqp10a	1090	1564	1342	1163	386	235	522	593
zgc-56382	15670	21056	14246	15543	11150	13188	36631	33650
krt4	2277570	3172660	2725380	2644105	1040929	626653	1408020	1552696
zgc-114170	6242	7896	7208	5998	2265	3145	13111	11437
mao	16333	23795	20983	20093	9635	6549	10653	9610
zgc-193613	173217	278937	265754	256146	109544	87162	111400	134039
zgc-111983	18577	24715	16529	18502	14008	16596	43688	39311
gcga	1089	2508	1668	1296	539	340	768	836
cx28.9	6056	8298	6025	5132	2413	1288	3779	3441
zgc-101540	4442	6830	5315	4633	1953	1225	3220	2896
apoa1	167473	305469	296771	316494	165452	130220	114731	164989
ctsh	3684	5485	5016	3851	2596	1506	2384	2129
zgc-175280	9425	12691	10812	10062	4095	2786	5897	5184
hsd11b3a	3017	3955	3146	2771	1269	748	1559	1705
zgc-103681	768	1125	924	817	381	212	409	444
si-dkey-31f5.1	5066	7195	6266	5532	3244	1650	3530	2902
mep1a.1	7567	8124	8670	6560	3056	2434	3922	3887
si-ch73-252g14.4	4801	6539	6080	5086	1145	1045	2850	2353
dhrs1	7702	10402	8778	8569	3586	2629	4740	4536
zgc-112160	145092	189645	177034	135568	40288	17895	83776	65624
fep15	5631	7805	7796	6411	3305	2173	3650	2818
zgc-194626	80	154	168	145	52	32	36	19
cyp2n13	10566	16246	12282	10199	3732	3109	7053	7281

zgc-153036	1760	2440	2032	2097	790	448	1001	1050
scp2	24472	33517	29912	27776	11055	8286	14812	13750
zgc-66484	3278	4764	3832	3051	1602	1272	2334	1897
LOC100006793	2472	3190	2525	2228	1006	584	1247	1388
si-ch211-117n7.7	979	1124	1180	970	619	492	475	439
LOC100005645	1101	1428	1208	910	425	272	543	463
cyp2p8	2520	3372	2747	2335	1145	817	1498	1531
cyp7a1a	9226	10583	7455	5677	2402	1259	4572	4027
f7	3986	6429	6036	5976	1897	1578	3354	2527
ethe1	5089	7066	6880	6967	2692	1838	3603	3176
kera	2302	3661	2804	2247	1491	1084	1564	1420
lta4h	9244	13896	10946	8766	4542	3160	7033	6382
zgc-162331	2910	3877	4004	3859	1094	755	1901	1865
zgc-92763	2675	3826	3306	2600	1026	987	1908	1859
zgc-92739	7807	10748	11217	9951	3142	2524	5788	5062
mgp	155	226	229	208	61	124	586	578
a2ml	24649	40098	35656	29002	12152	8870	22952	19406
comta	1790	2518	2167	1856	872	576	1050	849
proc	1935	2846	2601	2022	916	535	1255	1136
zgc-91963	58	316	112	133	33	59	539	352
pnp4b	17968	24620	20341	19484	7402	4362	12447	9773
gnat2	72846	96614	78728	63534	29245	27140	46847	44460
klf11b	2079	4450	4981	4280	1718	2851	7639	6895
zgc-86757	27594	35437	28915	24439	8723	11988	59955	55443
sesn2	758	1240	818	986	372	468	1921	1407
mtp	7548	10650	9078	8209	3952	2624	5416	4983
bbc3	3838	4518	3897	3240	1203	2136	7604	6206
uox	8533	9719	7337	6007	1779	2232	4226	4004
zgc-114142	12322	17226	15508	13660	4983	4442	8213	8208
LOC100006238	4694	6202	5523	4954	1750	1429	3073	2551
neu3.3	1204	1541	1354	814	438	214	673	557
fads2	5580	7142	5558	6394	1753	1128	2935	2352
cyp2aa9	118	388	273	319	121	69	40	204
phyh	5289	7405	6166	5285	1440	1254	3589	3488
tmem195	6977	8323	6600	5240	2892	1878	3151	4185
rdh5	6807	8887	7570	6200	3046	2718	4256	3539
gabra6a	2181	2916	2783	2569	1110	835	1578	1340
acsf2	5294	8332	8281	7179	3657	2705	4129	4484
guca1d	903	535	426	477	67	57	294	280
rlbp1b	18076	23169	19459	16202	7548	7204	11187	11711
cyp3a65	184822	233584	183047	154225	48770	41307	107855	98082
mep1a.2	4884	6057	5753	4442	2583	2105	3044	2736
zgc-111821	1868	2101	2034	1395	715	908	3030	3389
slc43a1b	5426	6819	5999	5143	2536	1831	3380	3462
foxo3a	38388	51189	44838	39079	14376	9303	24943	24408
stk24a	1413	1965	1570	1280	803	502	809	675
zgc-110354	1228	3034	1535	1491	1522	2070	3645	2911
zgc-153394	595	904	842	908	225	151	411	422
tm4sf5	2235	3388	2736	2289	1094	614	1647	1408
zgc-77082	1776	2486	2806	2436	1112	590	1270	1290
zgc-110266	805	994	992	717	238	312	1715	1165

acaa1	3137	4565	4242	4057	1864	1405	2415	2199
si-dkey-91f15.1	456	816	659	380	206	85	308	210
gstal	14478	21060	15867	14120	7785	6391	10081	9700
zgc-114180	3604	5495	4906	3696	1872	1778	2745	2804
zgc-136410	1348	1909	2052	1521	609	543	731	1062
zgc-158404	722	1294	618	498	391	994	1610	1263
ugdh	3123	4371	3494	2838	2374	1353	2147	1934
zgc-162630	7131	9106	9377	9673	2247	2786	14808	10114
crygm2c	793	891	785	732	475	454	1771	1365
gchfr	1900	2850	2637	2165	824	573	1043	1242
sparcl1	4194	5491	4803	4493	2157	2056	2787	2879
pltp	5047	4905	3939	2621	1162	2034	8762	6175
vil1l	29544	39364	34221	31163	19285	13281	19444	16342
si-dkey-239i20.2	1434	2010	1681	1464	443	246	956	853
prhoxnb	278	352	377	251	241	120	157	101
hpx	117	398	322	381	126	54	109	82
bfb	564	758	563	578	259	120	202	258
serpina1	21250	27743	22363	20549	9045	6677	11713	13030
anxa2b	2996	4217	3461	3065	2180	1697	1968	1528
pglyrp2	428	539	470	368	210	79	222	174
zgc-173961	2930	4193	2683	2498	1143	1070	1934	1837
zgc-113028	6181	8705	7647	7110	3215	4848	13233	11148
igfbp2b	1295	2146	2231	2028	712	521	1030	933
crygm2b	464	553	419	381	163	330	1105	729
cyp2x8	1743	2172	1412	1271	262	250	866	995
adh8b	11361	15335	14397	13966	6646	5300	7857	7832
abcg5	1846	2136	1714	1752	954	436	1093	949
zgc-153311	236	356	305	293	105	192	706	715
si-ch1073-126c3.2	536	1160	769	613	171	72	507	402
cyb5a	4951	7301	6761	5706	3689	2448	3559	3459
hkdc1	1369	2120	1723	1534	1269	643	983	834
cyb5r2	1058	1543	1316	1195	705	424	642	687
zgc-109930	20718	28134	29222	29586	7833	6123	13802	12963
cldn15la	5839	8245	7792	6490	2675	2036	4616	4097
foxo1b	796	1001	846	718	181	304	1937	1411
zgc-136930	249032	312253	294462	256420	141633	120780	130311	136946
zgc-194131	22442	35306	32532	37076	18492	12175	17090	17397
gnb3b	51538	73434	73031	65706	32506	23861	37240	34971
icn	44018	64860	48924	42155	11524	7295	32871	31493
rgs2	463	905	812	853	449	378	1558	1314
gbp	9072	14073	13571	12451	4804	6051	23332	20388
dnmt6	6625	9448	8576	7696	2358	4296	15380	12252
pde6c	90833	116899	96714	81572	26311	26612	61967	63334
zgc-172158	999	1402	1290	1042	411	315	707	671
si-ch211-214d2.2	288	567	556	598	280	245	226	244
sult1st6	1460	1884	1795	1547	827	433	957	959
cyp2aa4	357	846	870	406	310	250	239	401
aldob	525008	661130	515163	434962	135190	99061	327592	299001
scd	232	391	265	275	101	78	771	459
c3c	18654	25621	21721	15193	5211	3693	15606	11816
mmp9	1394	17214	2642	2422	635	515	4741	4261

gck	70	146	136	68	557	13	90	59
zgc-55420	63054	88437	87918	80202	25283	18885	43583	39368
thbs4b	23613	30929	29483	23518	11615	16490	49289	40476
slc27a4	4697	6701	6053	5087	1883	1363	3332	3006
zgc-152945	2185	8836	4433	1879	558	351	4399	3497
cfhl1	181	356	433	298	239	95	175	80
zgc-172051	7390	8032	8093	6696	2236	3094	4754	4800
itgb1b.2	3294	4449	4437	3990	2375	1664	2439	2051
mogat2	4380	5653	4609	3965	1696	1225	2860	2656
gh1	1793	2652	2075	1122	437	244	1122	997
amt	3840	5677	5078	4646	2027	1635	2941	2666
si-dkey-184p18.2	514	696	547	407	227	248	1284	1204
sgpl1	34459	45717	36458	29463	12492	8891	23363	21762
zgc-114041	399	569	489	361	113	159	959	646
bcl6ab	3873	4530	3973	3578	1136	2134	7443	6019
dpp4	7731	9913	9218	6949	3188	2305	5366	4984
ms4a17a.17	1276	1682	1864	1398	569	263	922	824
decr1	2175	3320	3452	3546	1580	1291	1817	2074
zgc-114201	5774	10048	7720	7901	4491	2500	5441	4845
aqp8b	26	58	72	42	47	4	11	11
ephx1	2981	3780	3211	2291	829	642	2082	1876
mettl7a	1112	1481	1276	1015	330	332	693	618
zgc-92474	7793	9807	8934	9344	2375	1664	5198	4681
apobl	553930	859088	729438	563202	159176	141282	440126	499132
fhl	1268	1731	1304	890	412	718	3031	2639
zgc-112368	760	1319	1335	634	364	234	2014	1609
zgc-172253	2819	2943	3098	2453	890	1086	1754	1674
prph2b	19958	25549	22562	18340	6177	6081	13883	14016
zgc-136872	1843	2290	1768	1575	758	451	1207	1009
zgc-55406	101529	121997	112551	100518	38954	30906	64309	57847
si-dkey-69o16.5	5457	7523	6577	5622	1658	1560	4133	3497
zgc-163057	85	134	102	118	62	102	257	305
cyp51	2385	3987	3406	5507	1527	799	2035	2068
egr2a	278	547	2551	4198	208	167	555	809
zgc-136890	3065	4902	3714	3177	1126	741	2367	2102
ddc	3525	5077	4477	3806	1697	1176	2749	2425
stra6	11259	13742	12196	10415	4062	3181	7344	6766
slc5a1	24143	28633	23788	22607	7632	4336	16246	11942
pla2g12b	13239	21271	19580	18470	7630	6922	9826	11832
ctdspla	9575	12317	9898	8181	2643	4254	18381	15617
slc5a5	318	542	491	455	203	78	179	165
zgc-103580	56	2839	814	218	109	71	648	996
zgc-56376	12108	16306	14009	12424	4232	7035	28320	25065
stat3	8520	13355	10833	9438	2916	3473	18715	13767
zgc-174904	3504	6186	5446	4387	1600	1196	2611	2464
guca1g	1039	939	642	549	194	151	452	485
tmem54	260	342	322	180	52	40	84	80
LOC556575	3453	4992	3555	3320	1307	1232	2206	2195
aldh9a1a	103515	131283	114351	96013	37419	32035	66992	63683
zgc-175088	4467	5917	4808	3842	2438	1541	2910	3022
sult2st1	1375	1700	1256	1195	484	740	2900	2627

ezh1	5414	7132	5502	4799	1758	1107	3458	3103
zgc-154073	1299	1799	1349	1190	371	362	2769	2590
tmem56b	7893	11368	9707	8221	2516	2084	5938	5782
slco1d1	8892	10962	9350	8012	2786	2736	6104	5153
fbp1a	11344	14297	11960	9165	3052	2245	7583	6940
slc5a9	1053	1289	1242	1359	529	309	672	628
zgc-103585	1412	2202	2078	1690	1020	773	1190	1054
dhcr7	6425	8281	9113	8754	2468	1804	4912	4043
amdhd1	1358	1807	1765	1564	627	496	878	802
sult1st3	1928	2552	1792	1482	649	422	1251	1119
gpd1b	11330	16022	15357	13648	5373	5415	8577	8776
crot	4631	6731	6281	5047	1718	1485	3724	3944
hao2	2456	4239	4208	3947	1700	1179	2178	2042
zgc-136353	1456	2225	1854	1640	910	605	1006	1070
fosl1	407	1044	1826	2816	382	338	1644	1181
LOC567547	2587	4037	3699	3090	1241	1992	6198	5144
col10a1	12086	18118	19788	14616	8210	11209	25562	31313
lgals2b	68531	102075	66696	52429	22285	17175	55869	47776
si-ch211-81a5.8	2358	3558	3356	2823	863	1058	4951	3777
zgc-113625	26	56	13	3	26	81	123	82
tmx3	1576	1867	1721	1363	457	504	950	951
fbxo32	19076	20312	18034	15192	2495	3657	30960	29206
icn2	18704	25512	17303	12834	4831	3898	13831	14047
ugt5a3	387	490	374	322	114	63	181	201
zgc-153024	1856	2494	2477	2177	1309	829	1368	1066
zgc-136551	3176	4673	3835	3363	1155	1376	6440	5037
gpr39	15464	22349	25365	25145	12112	8560	13538	11345
aacs	3037	4262	3534	3067	1072	952	2185	2076
gstp2	1712	2591	2120	1806	876	419	1567	1434
scpp7	15	5	2	0	0	4	64	63
gtpbp1	5736	8629	6979	6172	2761	3021	10859	8029
gadd45aa	897	1650	1581	1484	485	825	2458	2025
LOC567512	589	656	611	647	169	99	303	329
si-rp71-1g18.10	373	400	488	314	135	122	208	171
ugt5a2	357	480	408	309	115	55	190	196
ankrd1b	10846	14155	13234	11527	6858	4915	7064	7822
dlx4a	1453	1791	1801	1769	693	956	2933	3098
cpb2	825	1188	952	777	415	363	534	495
stc1l	2194	3667	2875	2332	850	740	1606	1648
slc6a11	485	703	515	565	305	168	228	312
zgc-153443	7656	9404	6986	6864	1285	1142	5591	4720
slc23a1	1571	2111	1838	1665	676	354	1006	905
ms4a17a.16	443	580	616	496	109	83	247	261
ubb	12449	20240	13699	12250	6690	9121	27596	23553
slco1f4	7	22	15	27	1	22	78	113
LOC798872	10706	9465	9080	10145	1339	2595	15951	14384
cyp2p9	1220	1998	1821	1293	425	314	886	933
sardh	5282	7121	6899	6101	2424	2011	3997	4089
mybpc2b	20103	24694	20590	17912	8479	12459	39953	37476
pgm1	20453	29494	25791	23691	9475	7193	15877	16087
acta2	45036	62116	52104	44706	17796	11450	34360	30369

mycl1a	1564	2750	2577	2205	1089	1715	4132	3486
heatr1	5886	7489	6207	5167	1463	1989	11208	8884
yars	3757	6022	4541	3885	2407	2526	8185	6277
slc16a9a	9804	12677	10619	9006	1622	3148	19437	15244
socs3b	4243	9647	7126	6518	1712	1708	12666	9533
klf13	4206	5231	3394	3136	656	1075	8016	6167
socs8	1038	1483	1220	1034	349	137	658	700
slc1a8b	2532	4361	3629	3089	1050	790	2402	2356
nos2a	47	74	35	26	9	13	69	31
itpk1	7322	10253	8520	6992	3144	2412	5361	5028
nipsnap1	558	761	756	674	209	207	350	361
zgc-123207	962	1267	915	855	299	152	605	446
gadd45ba	14260	27404	26109	34055	8568	10608	40294	35136
zgc-123244	423	597	654	718	299	203	276	242
slc43a2a	20315	29471	19653	15351	3516	6216	39887	39255
gcshb	2114	3087	2475	2164	1452	1026	1754	1463
ugt2a3	3539	4634	3828	3627	1592	1244	2684	2256
lox	1126	1735	1826	1760	767	831	2705	2624
chpt1	17359	24709	22149	19783	7247	5534	13303	12722
zgc-92533	1058955	1364487	1190649	1181349	422551	298550	719537	707175
ppp1r3b	197	594	441	373	183	172	207	202
brf1a	1027	1818	1324	1097	369	551	2244	2030
zgc-162969	32	42	34	37	9	2	134	114
cpa4	29244	38166	35954	26678	9452	3672	23120	16491
ugt5e1	662	962	913	704	278	222	434	531
dao.2	2621	3312	3090	2557	1009	800	1762	1640
desmb	5455	6157	6368	5150	2685	1719	3629	3415
rx1	7181	6464	5521	4951	1150	1096	4142	4050
mycn	10465	14152	11605	9958	4135	6864	19907	16821
hsd17b4	23403	30696	32569	30711	9723	8140	17948	15878
si-ch211-102c2.6	6869	9572	7819	6028	2830	2031	5164	5720
zgc-64043	6810	9543	8164	7532	3095	2359	5335	5445
rybpa	4151	5558	5152	4866	2046	2942	8549	6915
hbbe3	4	12	12	4	180	28	8	0
acta1b	280034	399948	356372	338998	154217	113345	238484	249917
ppp1r3cb	7145	8963	8424	7201	2425	2489	5768	5143
rgn	2931	4176	3964	3465	1617	1044	2329	2024
zgc-101129	1564	1963	1708	1351	504	597	1127	1041
slc34a2aas	2688	3745	3413	3840	1954	1032	1834	1963
zgc-153038	818	981	1132	820	298	226	584	420
nbl1	4158	6037	5768	6030	2081	1470	3145	3143
si-dkey-52k20.7	55288	62702	52586	35856	11123	6456	40610	25701
acsl5	19058	25058	20196	17133	6467	5983	14028	13707
slc25a3a	7050	8848	8377	6829	2556	2499	5884	5437
gdpd1	2990	4437	3530	2817	1384	1022	2510	2562
zgc-136871	2352	3530	3171	2373	1239	879	1924	1798
zgc-158281	8243	10235	7606	6446	2121	2758	14276	11638
sst2	396	698	649	451	309	173	304	239
crybb2	38	84	56	81	12	34	226	169
psat1	1749	3097	2647	2138	1044	1609	4447	3872
snx10a	393	525	545	434	121	258	1185	876

pm20d1.2	3485	4347	3722	2701	813	647	2305	2416
fgb	13198	26201	22524	21025	9077	7529	17356	13513
zgc-162816	1102	1372	1289	1299	665	379	793	709
zgc-92380	10297	13783	13542	12305	4263	3443	7030	6974
zgc-153440	9695	14257	11779	9460	4077	3438	8343	8233
zgc-66382	584786	741116	737079	547410	162033	82639	424053	345088
pkm2b	135863	199070	207227	187301	66829	51598	111716	109250
zgc-171534	1253	1370	3124	1455	9	459	989	848
creb3l3	953	1224	1300	1161	330	218	617	623
chac1	163559	197094	174775	154138	46991	54229	324888	246552
crygm6	2	0	3	2	0	4	14	6
gys2	6589	8141	6959	6433	1949	2110	4793	4362
zgc-85752	1484	1876	1543	1208	730	766	2628	1830
mmp14b	5740	11182	7812	5918	2425	3401	13345	13353
agpat9l	2340	3225	3167	2661	1211	910	1980	1714
wu-fb12c06	7480	9719	7025	6147	3775	4557	11691	14778
zgc-136808	1134	1722	1363	1161	622	390	770	881
atp1a1a.4	154315	193942	146805	123494	42981	36214	106633	94263
tfr1a	2503	5683	4798	3608	2066	2977	8092	6641
c8g	1071	1570	1344	1046	685	442	998	656
zgc-136850	1224	1446	1320	989	358	262	783	829
cndp2	7179	10283	8563	7373	4160	3195	5695	5486
gnb5b	7926	10484	9836	7704	3831	3804	6577	5605
zgc-136820	3891	6150	5133	4734	2036	2781	8571	7645
zgc-171581	733	1088	952	617	233	163	463	492
si-ch211-244h7.6	902	1297	958	671	426	229	421	598
elov1a	1058	1551	1344	1274	556	811	2274	2164
zgc-92479	22426	30740	29646	25155	15764	10801	18020	14655
atf3	1897	4313	4105	4138	1414	1174	5384	4147
zgc-158773	172	197	160	216	126	117	325	328
slc25a20	9727	14436	14307	14719	4564	4067	8908	8652
serpinb1l3	28174	40013	34441	34556	8691	7311	21469	17942
zgc-113291	1325	1670	1397	1130	317	342	858	894
rgr	15603	19439	16443	15007	3694	3663	10841	9881
tmprss13a	1517	2187	1559	1280	616	811	2921	2289
cad	23652	39227	31399	28641	12183	15141	56041	45325
tectb	251	376	248	164	99	196	474	655
vsg1	4713	7361	5715	4740	2138	2934	9843	8801
sult6b1	14994	22240	15209	13486	6889	5616	12413	10882
frem1a	3642	6733	5587	4359	1791	2244	7984	8317
dio2	264	389	234	286	37	84	647	524
sepp1b	4994	7650	7194	5972	2291	4035	13669	11106
LOC798075	955	1355	1046	912	499	446	687	673
grwd1	3077	4301	3442	3265	1632	1838	6106	4596
gstt1b	2013	2883	2344	1814	1084	894	1504	1468
zgc-101050	3950	5278	4932	3733	1821	1811	2842	2850
si-ch211-200o3.4	5206	7130	6234	4972	2466	1812	4500	3883
zgc-77906	3614	4665	4374	3609	2419	1662	2382	2247
si-ch211-89f7.1	2093	2611	2241	2377	1075	800	1536	1236
si-dkey-61p9.11	139	191	171	54	51	92	481	282
mybbp1a	9352	11512	10547	9243	4367	5494	17040	12232



fbn2b	10338	19755	18584	17279	8157	10721	27622	25848
zgc-92040	1943	2594	2622	2112	779	647	1497	1515
socs1	991	1817	1460	1194	411	202	952	735
kmo	3425	4336	3582	2816	1047	841	2633	2362
zgc-56518	5137	6821	5876	5232	2012	1931	3881	3954
tmem41ab	3620	4401	4470	4297	1575	2081	6598	5940
atad3b	7075	9919	10449	10500	4071	4696	14476	10021
crif3	5085	6973	5884	4815	1991	3164	9419	8002
nle1	1883	2664	2262	2002	949	1068	3775	2737
zgc-153027	378	806	694	711	259	342	1087	731
lpl	35548	40881	29895	24854	9102	5128	21748	19083
zgc-56085	19367	25408	25646	24088	9707	8621	17102	16644
ace2	49146	61511	53233	45009	20070	15184	34431	31797
try	638811	766345	745715	590273	179549	109152	443576	339723
cpb1	101631	125944	126413	81026	26309	14150	74490	57122
LOC567396	373	626	591	520	174	142	262	248
crabp2b	1664	2853	2309	2312	942	1217	3532	3637
zgc-63663	88435	114712	91260	77581	33684	25866	67399	55328
epyc	8584	12214	10690	8718	5146	4814	6042	7154
lect2l	2008	7551	4655	2445	1175	1037	4831	3141
zgc-73056	7924	11037	10218	9304	5068	4709	6445	6040
zgc-175221	5771	8881	5535	4230	1867	2785	10851	9919
zgc-86896	23797	33054	31834	27611	13133	10104	17987	19449
zgc-56429	3978	5514	4993	4414	2081	1554	3202	2911
tfcp2l1	264	566	358	382	78	50	186	198
si-ch211-284o19.6	111	153	158	154	28	44	44	45
zgc-136545	3324	5257	4273	3951	1786	2554	6905	6479
arg2	52858	58243	48237	38070	10767	7098	36705	30683
cpa2	149	152	233	122	33	86	331	206
ilvbl	4749	6516	5677	4875	2437	1938	4113	3527
slc15a2	4831	5667	5943	4065	2040	1545	3736	3320
tars	4366	7372	5790	5252	3012	3749	9548	7792
scinla	21965	31404	25406	20704	9723	13094	44058	41143
sod1	12403	16755	15195	13152	5964	4715	10826	9204
zgc-154001	7561	9742	9044	7521	2947	3642	14442	10501
baxa	2545	3858	3340	2790	1216	1702	5177	4587
defbl1	2056	2774	2045	1243	644	560	1609	1484
gcat	7046	10429	8655	7797	2693	1955	6149	5439
fabp6	16738	23038	18312	16205	8390	7596	12567	11370
gyg2	82	97	84	68	25	60	256	216
slc1a2a	6660	9315	7673	6622	2076	2367	5657	5167
wu-fd55e03	5093	6580	5916	4840	3168	2085	3879	3171
si-ch211-153j24.4	18	26	26	56	8	30	89	71
serpind1	3437	4682	3657	3216	1094	899	2817	2216
alas2	2189	5681	4575	3498	2522	2544	7129	7503
klf2b	5245	8782	13545	13699	2007	1361	5754	7973
ch25hl1.1	1444	2145	1784	1589	784	533	1049	1009
zgc-162184	2013	2753	1828	1313	470	726	3210	3517
c11orf67	1638	1987	1514	1270	395	305	995	982
cpeb4	5520	6764	5599	5171	1751	1362	4146	3870
LOC555692	1451	2488	1997	1867	1011	1180	3174	2310

fgf19	127	213	384	358	119	60	154	119
cpa1	20530	24128	19670	13154	3158	2093	14448	10689
aadacl4	134	180	177	203	32	31	92	52
crtac1	5123	5529	5001	4374	979	984	3607	2617
slc7a3	24541	34806	26032	22682	6978	10629	45815	39423
si-dkey-266f7.9	2426	3184	3339	2511	736	698	4814	3679
pcyt1bb	1068	1505	1233	1315	588	390	848	697
f9	106	172	225	152	60	28	38	52
msrb2	1198	1913	1671	1488	711	600	1030	961
nop58	7912	12465	10362	10646	6264	7621	16353	12919
gpcpd1	11163	14748	9974	8130	2452	3816	19860	15749
cell	32155	43813	34071	22524	6813	4342	23023	22207
ugt5a4	111	235	124	92	29	22	56	54
zgc-77739	2674	3413	2894	2560	1214	846	2208	1981
zgc-64031	2197	3413	3238	2986	1084	737	1848	1932
abcd3a	11644	15894	13179	11600	5646	4333	9563	8190
rpe65a	40187	46946	41972	38997	18397	15737	26970	24370
si-ch211-244h7.5	504	623	504	303	182	158	248	229
aldoab	191806	278176	240248	214387	71315	62103	155589	145221
si-dkey-10o6.2	567	950	835	502	276	218	470	449
zgc-153704	10056	13717	11579	8832	3087	4371	18579	17864
spam1	137	282	268	253	127	79	137	81
dao.3	117	166	146	159	103	38	60	64
si-ch73-6k14.1	93	536	358	222	58	84	658	326
pgrmc1	4919	6680	5885	5093	2702	2419	4103	4059
cpt2	2032	3621	3244	3039	1519	1191	2350	2179
zgc-112199	32	67	49	60	18	10	125	64
apoa4	42633	66346	63161	59803	31882	21233	37357	36747
ctrl	247555	308227	298649	251185	83116	46711	167610	139140
sid4	12020	17161	15371	15878	5388	5269	10811	8098
zgc-171704	37	54	51	22	5	22	166	133
vdrb	8565	10497	8523	7065	1303	1233	6485	5560
ckmt1	21636	31360	28716	26802	14215	11441	19165	17679
LOC100005578	2	0	0	0	0	3	12	2
zgc-56292	610	992	713	757	559	643	1318	1181
zgc-73230	6090	8174	6917	6293	3111	3555	11463	9550
fgg	16247	28064	24012	22205	9231	7027	19387	15556
c6	1950	4099	2974	1906	862	828	5324	4218
fkbp11	3872	5352	5685	4556	1794	1607	3517	2611
dhrs11b	1814	2399	2271	1862	880	626	1403	1295
zgc-174908	2915	3887	3464	3009	1023	784	2391	2208
pus7	7674	9102	8652	8137	3191	3607	13728	9333
zgc-101897	4685	7124	5804	4514	2209	2005	4093	3995
hells	1228	2101	1830	1585	996	1594	3156	2579
wdr75	5024	7270	5770	4995	2356	2833	9939	8018
elovl4b	4677	5935	5873	4640	2015	1889	4003	3850
zgc-112407	1889	2362	2404	2276	566	534	1444	1432
si-ch211-140f21.1	10089	13974	11557	8859	3419	3524	8497	7379
abcg2a	37332	40676	31849	29389	8436	7492	25556	19324
zgc-154006	683	818	903	713	320	283	424	365
gamt	100747	146489	120461	111237	49964	38727	80187	70428

ckba	16051	20203	16876	14878	6646	5959	12901	11330
zgc-162925	1452	2332	2049	1829	612	940	3214	2192
rrm2	1477	2536	2271	1808	950	1779	4146	3984
ctps	3171	5090	3818	3387	1990	2339	6663	5353
zgc-194392	300	447	385	378	302	213	142	152
zgc-63647	6181	8328	7462	7352	2313	2637	5751	5016
rx2	793	1321	1598	1361	488	403	879	738
zgc-171281	2728	3461	2596	2444	686	1258	4800	3958
faah2a	2179	3242	3123	2280	969	801	1945	1845
opn1mw2	1744	1249	1765	1065	341	482	1090	736
zgc-92041	731987	925198	898109	647791	170179	106029	528130	412649
acads	3582	5417	5484	4437	2224	2153	3728	3114
ldlr	11375	16491	13350	12229	3465	1670	9151	7958
hadh	6509	9293	8651	7183	3703	3271	5972	5877
si-dkey-21e7.2	6978	8560	7939	6757	2495	2487	5842	4643
bcat2	14320	16376	14639	12445	4897	3552	10392	9768
zgc-161973	1413	1677	1306	1044	349	418	1007	972
rltgr	2085	2942	2201	1971	1017	712	1651	1693
si-ch211-235o23.1	1966	2482	2223	1706	544	808	3519	2808
aspn	1403	2407	1893	1371	674	1036	3166	3533
glc	26652	35276	29722	25343	7744	6397	20624	18391
ggct	7518	9447	9038	8936	3951	6608	13030	12185
aqp10b	450	552	577	681	126	97	336	243
zgc-163025	2024	3269	2841	2740	742	453	1822	1643
cyp19a1b	374	428	335	240	85	174	665	670
fmo5	3565	4594	3806	2788	1448	1011	2378	2393
gadd45ab	2685	4335	5280	4872	2665	1359	2732	2523
ca4b	628	745	619	810	208	181	356	449
zgc-158823	1277	1528	1248	1174	303	187	752	740
fbxl8	924	1273	1241	926	330	207	726	537
ada	39783	54646	41423	34238	14511	12733	31277	29789
prg4	2211	2834	2128	1802	646	866	3804	3106
cant1b	2481	3162	3013	3124	1128	1034	1746	1698
ptp4a3	11619	14106	10618	8574	3430	5078	19133	17107
si-ch211-240l19.7	51	72	45	46	70	4	14	17
dll4	3142	4268	3708	3690	1068	1390	5995	5099
smad9	5246	6246	5552	4528	1265	1637	8330	7328
decr2	1929	2435	2362	1841	692	637	1424	1236
sst1.1	3456	4398	3911	3057	967	724	2542	2369
LOC559803	4059	4779	4129	3555	1162	1169	2856	2616
nr0b1	1145	1576	1395	1275	355	310	921	634
cldn15a	3020	4032	3720	3294	1178	867	2374	2115
fstb	3775	5471	5210	4272	1698	1985	7296	6761
si-ch211-89p1.1	124	234	184	174	100	82	73	62
ugt2a4	2290	3021	2605	2404	1267	905	1993	1614
ugt5b5p	100	97	88	65	34	6	36	43
vtnb	5502	8321	7161	6296	3108	2622	4890	4862
tceb3	8186	8776	7740	7086	1195	1323	11800	8590
idh1	21365	27749	26375	21681	12040	8938	18348	15132
rgs5a	5962	7975	6521	4697	2178	3357	10168	10368
sdr16c5b	7807	11692	10596	9469	4824	3675	7401	6556

tspan13a	1817	2497	2527	2015	583	484	1544	1579
grk7b	413	880	775	698	382	270	414	526
zgc-153723	107	574	216	90	213	283	325	193
zgc-92005	2409	3228	3189	2925	1267	1356	1765	1852
hadha	3549	5238	5161	4733	1857	2128	3449	3382
col8a1a	3365	6346	5274	4958	3116	4993	7726	7669
slc2a9l1	31	92	26	53	14	29	120	102
zgc-92030	5832	9121	8253	7650	3801	3271	5704	5502
slc9a3r1	3850	5859	4469	4284	2003	1374	3384	3133
thop1	1354	1384	1489	1166	520	507	919	749
si-dkeyp-119m7.4	4545	5290	5326	4348	1308	1091	3112	3238
agt	6951	12207	9221	6818	2153	2643	18786	14164
tspan12	2424	3757	3935	3385	1181	1196	2115	2117
aldh4a1	15694	21193	18390	15719	4880	4377	13409	12272
es1	47	62	48	40	18	25	213	134
zgc-64114	16918	28201	19653	22831	6877	6860	34991	28742
adrb2b	699	1056	1116	1021	451	354	590	525
dyrk2	8509	12141	10490	9490	3192	3121	6933	6748
atp1a1a.2	17267	23678	18768	15007	5975	5139	13431	14324
dnttip2	6687	9467	6779	6324	2929	3162	12000	9141
igf2a	1586	1854	1442	1066	492	570	2691	2272
anpep	7723	8928	7774	6025	3336	2988	5446	4619
acy3.2	1455	1793	1773	1623	786	660	1098	904
inhbb	2215	3363	3023	2440	1058	1167	4193	4133
igfbp6b	1193	1684	1270	1334	327	219	835	718
si-dkeyp-73d8.9	655	621	328	457	299	242	245	281
ugt5a1	523	778	528	542	83	68	425	338
LOC797776	802	1521	1008	585	445	681	1329	1549
slc4a1	4584	11209	8796	6890	3861	4078	13276	12444
cdh17	17929	25229	20725	17963	9031	6622	15938	14327
LOC796505	2594	3712	3485	3461	850	996	5041	3608
zgc-92851	655	1182	3881	7332	533	359	1427	1626
zgc-158410	7186	10644	7774	6158	2810	2312	7301	5545
lox11	3955	6040	5352	4512	1557	1904	7181	6576
fga	17408	32457	26244	22571	9493	8356	24203	17625
LOC792509	8692	10527	9942	8360	3260	3543	7369	5851
arl3l2	1701	2317	2012	2275	1050	924	1342	1323
wisp3	672	946	967	642	381	291	484	574
zgc-86586	258	353	290	185	88	91	134	167
zgc-158374	14194	21020	21495	23873	9392	6775	11999	11596
si-dkeyp-113d7.4	284745	406460	364778	309897	156748	167560	213486	234909
aspg	7166	8271	8227	6465	2203	2765	12081	9894
rab13	548	957	720	544	321	420	1389	1278
cpt1b	3503	4670	4604	3940	1043	1322	3000	3291
fabp11b	280	329	326	281	296	569	516	438
dgat1a	4137	4986	4444	4662	1307	1185	3094	2991
upp2	4353	4864	3911	3347	593	1193	3034	2565
dao.1	66	292	321	413	211	244	77	183
mmp30	13102	15480	13191	9251	3341	2350	9921	10525
il6st	5260	9020	6908	5227	1482	1974	10928	9133
slc25a47a	6944	6305	6261	6135	2457	1601	4345	3701

cyp8b2	123	213	141	134	51	43	78	50
msxe	299	459	411	331	133	253	667	671
dap1b	4487	5871	4869	3928	1830	1509	3237	3339
zgc-73311	6626	8448	7721	5649	2652	2504	5970	5308
rasl11b	2917	3924	3462	2710	1350	1592	5392	4512
tmem86b	5629	7666	7766	6919	2614	2201	4813	5309
lipc	356	737	677	383	120	299	1378	668
akr1b1	9437	12821	9929	8732	4625	3460	8212	7157
si-dkey-127j5.5	8587	11050	9791	9358	3520	4046	13765	9784
top1mt	456	627	600	584	310	488	976	678
amy2a	99306	115954	97727	61786	18435	11641	76485	49106
zgc-153968	7278	11379	8489	8728	4759	3686	5943	6067
pls1	2820	3738	3336	2875	1601	1131	2353	2256
zgc-163080	4231	6264	5531	4878	2521	2317	3779	3433
itgb1bp3	8239	11830	9173	7598	4875	3620	7005	7060
pllp	1399	1970	1948	1626	1010	675	1257	1094
bbox1	2667	4283	4159	4063	1871	1390	2904	2510
fstl1a	1168	1801	1401	1186	491	758	2184	2145
zgc-173962	619	1021	649	535	179	198	476	443
ctsk	2270	3619	3133	2870	1425	1870	4502	3959
rcl1	3438	4382	3534	2921	1442	1778	6217	4608
rrp9	2086	3292	2547	2123	1476	1731	4103	3283
slc22a18	3365	4885	4356	3916	2382	1713	3061	2846
f2	9839	15278	12491	11439	4975	4872	9368	8795
LOC570267	1868	2718	2166	1518	739	801	3917	3203
hspa4a	4334	10875	8009	8195	5396	5875	12570	10572
riok2	3627	4923	4090	3501	1503	2227	6220	4672
zgc-92113	9167	11316	10530	9150	3317	3888	7100	7045
atp1a1a.3	10616	13692	11014	8737	3351	2307	8303	6641
ehhadh	2346	3479	2720	2593	1084	715	2065	1920
rgs9	3844	4865	4981	5109	2450	2269	3073	2976
dhrs9	6099	7928	7033	6355	2448	2349	5459	4399
abcc2	35808	47098	42907	33118	21623	15604	28687	23261
si-dkey-6n6.1	11708	17336	13217	11599	4694	6909	20522	20071
cyp1a	10857	15776	11273	11798	3388	3006	9608	8522
nfe2l1	11548	12983	11165	8383	1608	3465	18795	17477
ugt1b2	1919	2755	2368	2219	1044	848	1596	1630
etv5b	11884	16476	14382	11866	4524	5923	22090	19930
zgc-153151	152	249	273	203	140	68	162	96
cdc14aa	1029	1305	1180	1045	419	293	829	776
pdzk1	35611	44393	42917	42075	14900	11777	27284	23816
LOC791982	2190	3492	2833	2526	1246	1671	4175	3804
znf395b	21646	27342	25210	23773	7363	5865	16718	15219
il34	5	19	15	4	19	25	37	6
tmed1a	656	962	847	752	339	323	450	507
ugt5b1	449	814	739	584	253	211	466	338
hmox1	1653	3445	2623	2456	1208	1124	1815	2128
prmt5	2571	4069	3776	2970	1572	1987	5478	4629
zgc-85644	1878	2596	2197	1966	650	698	1672	1472
exosc2	1160	1695	1728	1617	908	890	2556	1774
epas1b	8403	10287	9909	7714	2505	2957	13610	12480

trim55b	2684	2969	2469	2133	724	1160	4667	3145
zgc-158781	399	540	556	547	173	223	818	838
slc37a4b	6749	10351	9418	8864	4072	3579	6677	6468
bms1l	7111	11183	9507	8609	4254	5199	13997	11149
zgc-165653	3043	4302	3765	3427	1360	1842	5703	4849
mfsd4a	726	1088	992	1040	308	173	544	523
wnt2bb	263	450	430	312	138	190	531	587
angptl7	3786	5933	5259	4371	2254	2461	7030	7309
smc1a	3053	4768	4118	3661	1741	1690	2684	2590
rtn2a	2829	4586	4005	3624	1698	1644	2712	2658
cldn11a	2485	4082	3350	3098	1208	1191	4977	4433
six7	12663	25513	24230	22454	4852	5534	15613	18910
zgc-165473	661	979	877	900	401	404	612	469
krt5	963544	1262154	1183696	1146077	421138	382940	763802	836430
mid1ip1a	8518	12457	12221	13409	7609	6598	15844	13329
thnsl2	1127	1517	1669	1271	835	526	1028	833
as3mt	1380	2029	1960	1838	573	626	1198	1016
zgc-162269	1575	2235	1730	1402	628	677	2872	2295
pparab	893	1231	990	935	178	108	671	468
iars	34143	47154	42819	37043	14391	16732	62164	46031
bcmo1	4794	5519	4437	3620	1416	1440	3392	3076
aca2	12195	17720	18985	16865	7707	7990	12507	11684
gnl3	6603	10324	8752	7952	4623	4971	13085	10164
zgc-162909	461	748	607	628	427	543	981	883
plek2	731	1115	1229	1086	381	533	1761	1536
ddx54	10629	14363	13171	13236	5294	6016	19259	14073
nme2a	1927	2238	1753	1369	610	594	1624	1257
aars	32854	45368	38652	32526	14722	17059	60982	45374
zgc-55512	5271	7234	5573	4991	1637	1887	9390	8935
ca15c	821	1519	687	642	222	183	891	1676
zgc-172290	34	20	27	14	12	8	62	52
serpinc1	13858	18902	13683	11335	4362	4677	12006	11561
si-ch211-107o23.1	972	1330	1072	716	246	353	1870	1114
slc2a10	249	392	394	270	126	229	563	533
slc7a2	5689	7363	6078	4835	2065	2012	4471	4328
zgc-113054	2784	3666	3390	3309	1056	1629	5467	4303
pygb	8088	13163	10837	8356	4276	3627	7950	8048
zgc-56466	2039	3000	2797	2550	1118	904	2156	1654
hyou1	2694	5216	4550	3795	2822	3011	6751	5396
mb	10790	16484	12631	12557	6348	9618	19783	17332
sesn1	113810	129561	109185	84770	29081	19852	84507	77795
prox2	1281	1920	1615	1471	521	476	985	1215
aldh2b	1038	1447	1271	1110	650	450	872	877
cx50.5	711	1192	1001	991	405	390	621	728
zgc-112350	3889	5040	4422	4268	1577	1803	6301	4477
zgc-162301	1437	2138	1731	1509	759	704	2575	2046
atp2b1b	6134	7849	6889	6127	2558	2780	5055	4986
oat	5209	7455	6220	5327	3144	3202	8376	7005
gata1a	173	464	430	297	130	159	666	578
rbm28	4711	6210	5374	5264	2221	2790	7810	6599
kpna2	1855	3670	3764	2998	2216	3116	5139	4937

noc2l	6475	8641	7737	6340	2779	2964	11894	8984
zgc-101710	1978	2905	2705	2344	1086	947	1787	2037
slc4a2b	6001	8727	7304	5934	1938	2427	10783	8806
zgc-55418	10385	15088	12265	9421	4350	5224	18759	18500
zgc-103438	725	1263	914	795	413	376	709	750
ugt1b7	2364	3312	2872	2701	1294	1035	1984	2040
angpt2	126	219	224	183	114	73	322	336
crfb12	743	1046	959	697	366	525	1219	1714
cthl	796	1170	1387	958	465	279	946	649
cyp2aa2	330	403	304	303	102	67	205	196
zgc-101650	812	1082	1025	779	370	576	1575	1441
zgc-113232	12597	21140	18987	19136	14091	14098	13974	11758
dnajc21	636	1055	857	943	786	674	1409	1053
pdap1	2405	3099	3087	2863	1413	2079	3524	3276
zgc-171663	980	1532	1540	1650	601	422	876	1152
iclp1	505	679	575	485	203	188	264	243
hmgcra	3336	5671	4426	6046	2524	1374	6932	5457
slc35b4	2479	3647	3832	2999	1683	1049	2449	2326
zgc-172295	2245	3217	3006	2850	1160	879	2017	1915
slc6a5	2379	3304	2656	2692	830	926	1850	1911
obfc2aa	927	1586	1308	1093	531	779	2071	1822
slc35d1b	1184	1611	1496	1004	711	490	879	957
mir729	11	14	8	6	0	0	2	0
si-dkey-185l3.3	762	1210	1377	1176	485	369	852	760
tacc3	1139	1937	1742	1594	1011	1694	2626	2696
slco2a1	2178	2826	2096	1816	611	452	1628	1551
scn4bb	1206	1565	1495	1215	248	377	1120	863
c8a	2204	3072	3174	2510	1157	1257	2078	1820
vdra	3955	5403	5111	5241	609	629	3511	2991
twistnb	1594	2207	2183	2172	1036	1135	2958	2094
ctssb.2	2412	3253	2522	2151	946	1159	3754	3539
surf6	1341	1821	1512	1588	862	1118	2171	1799
acox3	2803	3702	3315	2619	1001	918	2427	2269
ctbp2l	6552	10524	9643	9707	2808	2714	6303	6193
nmnat1	2826	4471	3279	3070	1122	1582	4976	4413
zgc-92712	763	1054	982	865	346	453	655	602
mid1ip1b	5068	7006	5270	4147	1574	1581	10196	8169
zgc-112374	1074	1596	1219	903	335	326	910	910
zgc-55671	7564	11033	8573	7415	3565	3830	13024	12344
zgc-110286	79	139	89	129	46	38	193	114
zgc-154086	352	620	495	473	163	200	799	655
ddt	4490	6278	5504	3939	1460	1404	4178	4060
slc5a2	1611	2007	2007	1812	544	450	1099	1314
zgc-92127	1982	2734	2263	2197	1237	1527	3382	2716
chrm5a	476	590	470	476	131	108	357	236
cryaa	16884	24963	18038	19514	6089	5706	12786	15626
cryz	1969	2486	2240	2373	957	764	1653	1647
acat1	26841	36204	30234	26464	10442	9456	23735	22017
adh8a	493	509	527	333	134	76	344	207
prdx2	60196	83423	71469	60547	27308	22495	53173	49656
s100a10a	19164	24145	20584	17716	6964	5656	14913	13208

zgc-136858	2209	3144	2729	2555	928	742	2044	1897
LOC100003647	669	7926	3258	1738	959	637	3190	3151
cirh1a	7179	8596	7200	5668	2092	2532	11787	8046
zgc-136902	2486	3472	2483	2723	1136	710	2141	2145
ugt1b5	1917	2806	2393	2208	1076	861	1706	1734
tmem37	814	1320	1236	1227	372	300	752	749
bxdc2	4860	7142	6001	6191	2792	3175	9024	6471
crabp1a	1911	2641	2411	2393	966	1471	3669	2764
fam73a	3910	4575	3882	3248	1294	1965	5811	5409
zgc-112242	1279	1346	1281	1268	479	595	2213	1639
nol10	6550	8752	7367	7080	2927	3388	11268	8609
hk2	1656	3113	2562	1985	1367	1261	3959	2934
prmt3	3135	4165	3371	2802	1205	1435	5386	4157
LOC100151110	12197	16444	14400	12044	4602	4351	10502	9866
syncrpl	5309	8262	7126	6711	3079	3894	10468	8766
ttr	7448	8250	6541	5844	2590	3437	4834	5605
nat10	5585	7827	6365	5032	2710	2954	9804	8169
tmem30c	3011	4292	3746	2697	1087	746	2521	2496
rbks	592	907	888	823	444	355	559	492
crygm3	244	354	367	217	77	120	533	391
cyp4t8	4343	5533	4625	3484	1571	1253	3953	2981
rrh	1618	1892	1867	1651	688	669	1192	1121
slc15a1b	33879	45819	35800	30400	10739	7346	30850	25461
rp42-pen	4970	6763	5707	5211	1915	2989	8271	8484
bcat1	3798	4558	3899	3089	1034	1621	6237	5020
pea3	5968	8507	7300	6001	1942	2584	10187	10006
dnajb1b	963	1273	1084	989	435	499	1824	1157
guk1	2178	2393	2017	1582	856	1086	1587	1495
rrp15	1985	2947	2396	2809	1884	2688	3386	2670
LOC565335	1046	1455	1104	865	288	367	1809	1545
zgc-195195	29	127	76	46	12	71	72	58
abcg4b	180	256	186	130	65	122	381	308
cldn1	11511	15860	13979	14838	4342	3608	9006	10058
zgc-171476	2659	3564	3034	2874	1214	1371	4312	3398
c6ast4	81884	115037	99827	66249	17491	9374	71252	57730
ptk6b	1335	1858	1712	1360	545	476	1311	1165
cyp17a1	744	1066	799	783	284	278	646	463
gtpbp10	1911	2613	2045	1609	564	761	3490	2888
wnt9b	843	1191	1171	923	423	602	1663	1399
zgc-162337	8323	8461	7268	6023	2510	2010	6181	6206
abce1	18245	27941	21945	18974	9544	10853	34838	26468
nola1	4360	6495	6078	5359	3101	3857	9108	7358
ttc27	5624	7537	6571	6269	2607	2771	10005	7269
cbsb	19585	23231	17016	14960	6562	4480	14322	11869
ppp2r2c	6441	8314	7299	6464	2161	1995	6006	4764
kdr	2615	4364	3305	2728	859	1127	4947	4151
ddx49	1361	1808	1703	1340	618	627	2457	2047
pbp	5655	7502	6477	5644	2343	2214	5570	4950
smtnl	4965	6914	4883	4669	1952	2089	8281	7207
zgc-195063	3687	6439	5807	5536	1298	1366	3829	4196
iqgap2	2873	4656	4076	3538	1611	1263	3167	2677



ido1	808	1162	809	978	436	407	746	606
vgll2b	5222	7544	7559	7832	1646	2935	9077	8300
ugt1b3	1774	2575	2238	2101	1004	814	1579	1610
slc1a1	5774	8022	6340	5152	2248	2282	5289	4707
zgc-55813	46482	64448	49728	42177	17610	21400	83761	75042
atp1b2b	6707	9270	8287	6668	3575	3303	6206	5714
gpd1	17208	23621	22057	21241	9467	8215	15031	13997
hgd	20317	20608	17818	13598	4804	4010	14472	12305
col28a1a	1852	2910	2787	2140	1227	1185	1515	1762
zgc-123333	9310	13994	14024	11700	4574	2906	8546	7974
acad8	3635	5448	4397	3971	2011	1399	3391	3039
memo1	2339	3657	3413	2979	1142	1118	4759	4960
ptgds	36617	31425	29470	21060	6534	6572	27236	20813
zgc-136472	2489	3151	2540	2181	959	781	2186	1853
bhmt	269929	378537	367128	365968	106292	114809	228011	215165
hspa5	15041	27287	25930	22749	15693	15373	35708	27149
thbs3a	2727	3561	3501	3081	1480	1750	4676	4646
utp15	3531	5004	3888	3725	1595	1767	6217	4795
si-dkey-25o1.2	1841	2302	2286	1236	506	511	1382	1599
ugt1b4	1776	2567	2228	2090	999	818	1578	1607
myoz1b	30428	37580	31479	25986	10824	11949	22978	23092
galnt10	3763	4998	5342	5543	2298	1610	3450	3027
pdcd11	11733	16903	13804	11992	5566	6425	21550	17520
bin2a	3177	4277	3692	3410	2032	1640	2829	2403
LOC100003253	50	87	88	37	32	29	151	180
guca1e	396	747	429	455	47	60	322	411
hmbsb	614	1406	972	784	716	714	1621	1584
zgc-110388	2064	3118	2144	1963	1246	1443	4000	3051
ppan	2623	3549	2791	2538	1341	1760	4443	3481
hmga1a	58127	95577	93632	87600	45942	60389	120981	122895
pkhd111	9730	14566	9189	8735	4665	4432	14442	13873
tgm2	4617	6747	6138	6229	2468	3476	4037	4553
slc12a9	3268	4240	3733	3261	1142	937	5195	4446
ccdc3	205	294	258	221	69	148	434	315
pdia2	9361	14179	11074	7145	2840	2476	9459	7836
zgc-110447	224	410	275	194	104	70	504	464
mipb	45463	61813	62391	62258	23818	25964	39543	39708
arrdc2	33770	47516	31356	24519	11454	12664	59533	49308
zgc-153997	18269	29171	29353	28950	7593	9461	37910	34097
zgc-136337	25278	41722	43275	43732	9968	9929	26868	28918
si-ch211-244h7.4	446	536	410	302	205	132	216	268
fhl2b	1683	1744	1193	885	379	248	1068	1009
cnksr1	2674	3831	3507	2601	1058	1406	4456	3802
rdh10a	6372	9040	7839	5961	3094	4118	10992	9798
LOC796384	2203	3809	2928	4148	1742	957	4636	3497
nip7	1486	2015	1662	1279	801	956	2436	2070
zgc-101744	6764	9918	8006	6410	2423	2463	6433	6231
cyp2aa3	144	276	195	138	56	24	90	165
riok3	6741	9286	7677	6433	2679	3062	11203	9716
pwp2h	3149	4698	4134	3491	1763	1979	6319	4998
flvcr1	2137	3200	2550	2572	949	659	2022	1795

ctssb.1	599	1161	986	696	442	317	1485	1127
insl5a	442	671	592	733	333	215	323	369
acadm	23733	31009	27337	23724	9799	9992	21195	19540
si-ch211-215l11.5	48498	65540	57448	49284	23311	16262	43811	44806
atp1a1a.5	3232	5008	3434	3138	993	789	2944	2660
LOC554843	1359	1760	1559	1635	653	518	1145	1164
cmklr1	542	807	680	527	286	235	1124	944
zgc-65772	6580	9115	9487	10681	3249	3704	11652	9353
ckma	1692005	2164871	1925499	1691146	623864	505960	1541641	1244721
fbxo30	911	1712	1041	890	270	341	1918	1496
cdk5r2b	8373	10168	8941	7779	2236	2552	7487	6842
zgc-172142	673	1065	824	779	329	352	1250	1061
noc4l	2122	3019	2500	2074	1266	1081	3801	3168
pthr1	219	392	276	283	102	158	500	423
dhdhl	7683	11298	9077	8173	4264	2946	7644	6249
ugt2a2	2482	3373	2928	2582	1423	1005	2384	1925
heatr3	3296	4716	4157	3459	1793	1716	6410	4806
npm1	14264	22147	17797	15484	9101	10596	25315	21940
plxnd1	3731	6043	5608	4877	931	1200	6618	5702
relt	1987	2632	2517	2577	767	855	3691	3169
si-dkeyp-95d10.1	4195	5715	4227	3761	1387	906	3477	3180
zgc-85869	1411	2179	1975	1573	929	1097	3004	2734
mak16	2695	3745	2975	2531	1475	1914	4627	3313
zgc-55307	13770	19179	14273	12195	5301	6260	23030	20707
ciapin1	2364	3412	2833	2387	1323	1581	4201	3111
manf	496	1236	1042	927	654	728	1403	1328
wu-fb12e11	4655	6976	6056	4949	1960	2498	8176	7896
zgc-194158	879	1090	863	752	361	285	630	676
si-dkeyp-84a8.8	1592	2178	1692	1454	644	803	2765	2258
dtwd1	1462	1994	1839	1768	577	608	2544	1945
lpin1	77223	93679	68911	59688	20268	15096	60632	54513
nmd3	11118	13654	11890	10020	4088	4647	17184	12191
arl3l1	2008	2492	1854	1688	605	629	1771	1608
LOC100005405	1	6	0	2	0	2	8	9
prrx1b	1221	1944	1595	1432	907	1196	2433	2174
paics	9006	15967	13090	12497	5348	6319	8382	11976
tpa	2446	3149	2563	1961	505	530	2134	1885
or109-11	48	111	81	89	40	22	49	29
gatm	57205	119201	116365	126196	54354	57881	71501	66971
zgc-153921	67	116	92	73	39	57	49	24
wee1	973	1599	1499	1355	662	813	2325	2012
ckmb	1464738	1883491	1689870	1487995	606628	510763	1330299	1085593
rbfox1l	14013	19739	19402	19738	6435	7182	12584	11454
rrbp1	8943	11665	10824	10142	5165	4112	8103	6273
dhrr3a	2231	3708	2682	2385	1074	1259	4483	4000
clu	7765	10796	8640	7476	4122	4793	12583	10012
si-ch211-219a15.3	830	1246	1036	1015	219	302	837	778
psme3	2185	3177	2399	2011	1227	1506	3890	3413
tecrb	13616	19654	17438	16247	6821	5898	12081	12646
tsen54	2459	2966	2673	2325	798	1052	3383	2755
zgc-113651	38	120	61	59	30	40	174	76

foxe3	220	315	270	354	84	96	170	167
faah	646	896	1098	617	336	270	644	509
anxa5b	9845	15813	13427	10051	4907	3799	10285	10179
si-dkey-25e12.3	88	305	169	145	102	149	303	237
zgc-109982	170	315	259	233	94	94	169	145
pts	4375	7276	7448	7969	5550	4111	3850	4097
hig1	5042	7085	5064	5385	1936	2580	8116	6913
hnmt	457	575	572	393	321	247	285	305
zgc-136406	575	914	759	542	207	355	1167	1030
si-dkey-32m20.1	151	232	222	198	58	24	107	107
ucll1	854	1168	1119	941	442	381	749	756
zgc-101594	870	1161	726	713	406	300	1523	1270
zgc-193505	7576	10166	8352	8365	3034	4117	10903	13556
zgc-91957	2731	4584	3631	2965	1844	1938	5262	4153
zgc-91787	786	1077	835	556	406	513	1523	1262
irf3	212	289	186	145	44	62	443	329
si-rp71-1g18.11	179	231	239	162	69	50	136	115
tfr1b	1125	2064	1516	1141	702	1339	2581	1951
ddx56	2963	4279	3330	2876	1437	1634	5351	4272
aldh6a1	99256	122103	108955	93340	36185	29453	79847	69445

VD-4	VD-5	foldChang	pval	padj
315075	309998	7.91498	1.03E-89	8.34E-86
366	152	0.068542	1.19E-89	8.34E-86
268555	305346	7.356439	4.25E-83	1.99E-79
31	114	0.086611	4.52E-78	1.59E-74
407	592	0.177533	1.47E-76	4.12E-73
32	92	0.088689	4.42E-73	1.03E-69
38919	39140	5.085264	8.97E-64	1.80E-60
2657	2546	0.206711	2.07E-60	3.64E-57
1626	2208	0.215502	7.13E-59	1.11E-55
683	899	0.193071	2.07E-57	2.91E-54
10434	2291	4.246515	5.07E-56	6.47E-53
1385	1312	0.252969	1.22E-53	1.43E-50
271	248	0.163441	1.46E-51	1.58E-48
21646	43811	0.21793	5.40E-46	5.41E-43
59	84	0.186298	4.38E-44	4.10E-41
1577	1445	0.260295	7.88E-44	6.92E-41
19806	18945	0.228214	1.91E-43	1.58E-40
229	126	0.142689	1.35E-41	1.05E-38
30030	19165	0.230407	8.39E-41	6.20E-38
5304	9170	0.280633	1.07E-40	7.54E-38
1503	1733	0.283678	3.89E-40	2.60E-37
1062	1181	0.29383	4.37E-40	2.79E-37
53148	31278	0.240873	2.89E-38	1.76E-35
42	67	0.214552	7.66E-37	4.48E-34
2602	3434	0.308182	8.91E-37	5.01E-34
1615	1689	0.317107	1.06E-36	5.72E-34
1821	1929	0.325392	1.97E-36	9.54E-34
1113	1216	0.313652	1.84E-36	9.54E-34
1045	1183	0.311807	1.97E-36	9.54E-34
1281	1374	0.316453	2.12E-36	9.90E-34
13431	14698	0.285112	2.40E-36	1.09E-33
1155	1263	0.315376	3.55E-36	1.56E-33
460	803	0.308583	1.38E-33	5.86E-31
10636	8008	0.307964	1.84E-33	7.62E-31
385	331	0.27003	1.93E-33	7.76E-31
6812	6301	0.318877	1.23E-32	4.80E-30
9089	7835	3.162383	2.31E-32	8.77E-30
19151	5830	2.63249	2.39E-32	8.82E-30
63663	66948	0.277565	3.11E-32	1.12E-29
1334	453	4.622466	6.66E-32	2.34E-29
228	238	0.234329	1.20E-31	4.12E-29
1035	1186	0.334071	1.63E-31	5.44E-29
109224	126504	3.207844	1.01E-30	3.30E-28
460	312	0.261821	1.96E-30	6.26E-28
27122	25797	0.281171	5.00E-30	1.56E-27
127	137	0.275152	9.64E-29	2.94E-26
95973	74398	0.300039	1.59E-28	4.75E-26
316	332	0.27415	4.80E-28	1.40E-25
27699	26486	0.324825	1.19E-27	3.42E-25
824	930	0.344149	1.80E-27	5.05E-25

566	456	0.301507	2.23E-27	6.15E-25
9969	16002	0.364498	3.16E-27	8.52E-25
782	155	7.97775	6.31E-27	1.67E-24
295	333	0.287911	6.89E-27	1.79E-24
287	319	0.286519	8.42E-27	2.15E-24
156	147	0.210588	1.13E-26	2.78E-24
1712	1521	0.339926	1.13E-26	2.78E-24
0	1	0.063703	1.27E-26	3.08E-24
81605	99319	2.79801	1.32E-26	3.15E-24
2088	2061	0.374649	1.36E-26	3.19E-24
10922	7762	2.678031	2.41E-26	5.55E-24
3802	4269	0.383711	4.75E-26	1.08E-23
544	694	0.306198	7.78E-26	1.73E-23
146786	185330	0.366653	8.10E-26	1.78E-23
665	656	0.375637	1.39E-24	3.01E-22
783	970	0.397328	7.82E-24	1.66E-21
1670	1933	3.355092	8.04E-24	1.68E-21
207	260	0.313087	4.50E-23	9.30E-21
18223	17773	2.569075	5.38E-23	1.08E-20
8226	7539	0.426842	5.40E-23	1.08E-20
4418	4562	0.405094	8.96E-23	1.77E-20
7603	9291	2.612191	1.22E-22	2.38E-20
4709	4465	0.415438	1.63E-22	3.15E-20
11347	15892	0.395896	3.21E-22	6.09E-20
34853	48473	0.390919	8.39E-22	1.57E-19
2231	656	3.453797	2.49E-21	4.61E-19
53412	76643	0.402224	3.66E-21	6.68E-19
1121	1171	0.401279	5.09E-21	9.17E-19
3153	3098	0.38656	5.41E-21	9.61E-19
348	404	6.219543	5.62E-21	9.87E-19
364	415	0.326383	7.39E-21	1.28E-18
456	396	0.36561	2.29E-20	3.93E-18
91	58	0.191137	3.22E-20	5.44E-18
1029	1111	0.409182	4.33E-20	7.24E-18
52243	65589	0.407145	4.42E-20	7.30E-18
313	280	0.318898	4.85E-20	7.92E-18
1623	1576	0.412214	5.66E-20	9.14E-18
5010	7676	2.534833	7.95E-20	1.27E-17
397	483	0.35828	1.06E-19	1.68E-17
79	192	0.399687	1.43E-19	2.23E-17
678	471	0.35884	2.13E-19	3.25E-17
2228	2073	2.770486	2.12E-19	3.25E-17
6565	5534	0.43354	3.02E-19	4.55E-17
136	154	0.305877	3.17E-19	4.73E-17
22902	24713	2.331405	5.12E-19	7.56E-17
9497	8326	0.411276	6.66E-19	9.75E-17
448	620	0.378992	6.90E-19	9.99E-17
446	619	0.338141	7.52E-19	1.08E-16
19370	2506	2.465963	9.90E-19	1.40E-16
995	1182	0.373641	2.01E-18	2.83E-16
13565	17446	2.333835	2.06E-18	2.86E-16

5469	5464	0.464375	2.92E-18	4.02E-16
41311	15669	2.076018	3.10E-18	4.22E-16
833	826	0.398811	3.27E-18	4.41E-16
1690	1666	0.42905	7.56E-18	1.01E-15
329	677	0.468526	1.00E-17	1.33E-15
416	545	0.37787	1.33E-17	1.75E-15
410	386	0.38258	1.62E-17	2.11E-15
3249	3853	0.460237	1.64E-17	2.11E-15
2335	1000	2.606823	1.67E-17	2.13E-15
2888	2942	0.457503	2.58E-17	3.26E-15
11	21	0.203358	2.85E-17	3.57E-15
712	806	0.429307	3.52E-17	4.37E-15
494	860	0.435447	4.98E-17	6.14E-15
30805	35119	2.35363	5.68E-17	6.94E-15
1962	1818	0.442654	6.44E-17	7.80E-15
5958	4826	2.295425	7.33E-17	8.80E-15
4773	3866	0.464875	1.14E-16	1.36E-14
24612	27094	2.252332	1.25E-16	1.47E-14
3566	3222	0.455504	1.35E-16	1.58E-14
2694	3325	0.489619	1.82E-16	2.11E-14
782	721	3.104107	1.96E-16	2.26E-14
1204	1506	0.444703	3.01E-16	3.44E-14
124266	95251	0.436368	3.35E-16	3.80E-14
746	667	0.401598	6.20E-16	6.97E-14
14393	13730	2.120343	6.61E-16	7.37E-14
9391	9395	0.480613	1.01E-15	1.12E-13
3433	2777	0.44873	1.07E-15	1.18E-13
141	168	0.327169	1.54E-15	1.68E-13
1799	1955	0.467296	1.56E-15	1.69E-13
204724	152310	0.427169	1.69E-15	1.81E-13
9489	10234	0.464542	2.53E-15	2.69E-13
341	395	0.403508	2.65E-15	2.80E-13
5801	8235	0.519105	2.90E-15	3.04E-13
7156	6998	0.476028	3.00E-15	3.12E-13
681	635	0.401612	3.28E-15	3.39E-13
4668	4982	2.148843	3.34E-15	3.40E-13
6	15	0.085114	3.34E-15	3.40E-13
4682	4571	0.496586	3.80E-15	3.84E-13
3525	3264	2.267774	3.85E-15	3.87E-13
792	764	3.220421	4.12E-15	4.10E-13
6815	6601	1.966785	5.30E-15	5.24E-13
1453	1417	0.454049	5.39E-15	5.30E-13
11459	12994	0.481676	9.81E-15	9.57E-13
4490	4378	0.481557	1.09E-14	1.05E-12
13490	14853	0.480452	1.21E-14	1.17E-12
425	387	0.378958	1.58E-14	1.51E-12
2081	1794	0.463957	1.69E-14	1.60E-12
12378	15113	0.490547	1.81E-14	1.70E-12
23651	16934	0.458214	1.95E-14	1.83E-12
3166	3439	0.468809	2.09E-14	1.94E-12
1116	1434	0.449114	3.47E-14	3.21E-12

2405	2598	0.4803	4.15E-14	3.81E-12
73	102	0.272965	4.47E-14	4.08E-12
13627	15856	0.505071	5.57E-14	5.05E-12
5373	5462	0.502748	7.02E-14	6.32E-12
3206	3236	0.479857	8.00E-14	7.16E-12
12956	13015	0.482967	9.57E-14	8.51E-12
1592	2109	0.522724	1.09E-13	9.65E-12
4752	4682	2.118316	1.13E-13	9.93E-12
2763	2729	2.066083	1.36E-13	1.18E-11
345	151	3.619082	1.37E-13	1.18E-11
11440	9225	2.043137	1.38E-13	1.19E-11
429	603	0.418871	1.46E-13	1.25E-11
5173	4879	0.477175	1.51E-13	1.29E-11
1021	1443	0.453732	1.69E-13	1.43E-11
992	643	2.449492	1.97E-13	1.65E-11
212729	275629	0.479161	2.57E-13	2.15E-11
1183	1313	0.474776	2.67E-13	2.22E-11
5112	6509	0.551407	2.86E-13	2.35E-11
572	613	2.790116	2.86E-13	2.35E-11
24774	33224	2.062571	3.26E-13	2.65E-11
1962	2055	0.509731	3.25E-13	2.65E-11
549	553	0.429463	3.29E-13	2.66E-11
1566	1914	0.508624	3.73E-13	3.00E-11
1160	1435	0.506718	4.06E-13	3.24E-11
5522	6504	0.53106	4.39E-13	3.48E-11
2635	2487	0.502602	5.64E-13	4.45E-11
4622	3076	2.024477	6.48E-13	5.09E-11
195	201	0.340671	6.72E-13	5.24E-11
384	597	0.419804	7.11E-13	5.52E-11
53311	29571	1.8396	7.63E-13	5.89E-11
1392337	1523039	0.526433	8.04E-13	6.13E-11
19229	15437	1.904014	8.01E-13	6.13E-11
10097	9485	0.507903	1.02E-12	7.73E-11
81475	108167	0.503187	1.29E-12	9.72E-11
62400	34359	1.819262	1.36E-12	1.02E-10
558	676	0.455467	1.41E-12	1.05E-10
3170	2896	0.497418	1.45E-12	1.08E-10
2336	2283	0.505445	1.53E-12	1.13E-10
87666	92024	0.505036	1.73E-12	1.27E-10
2622	1878	0.495632	1.82E-12	1.33E-10
5645	5550	0.521104	2.55E-12	1.85E-10
1568	1488	0.484868	3.04E-12	2.19E-10
248	300	0.404055	3.03E-12	2.19E-10
3097	3122	0.49339	3.17E-12	2.27E-10
4068	3692	0.532018	3.38E-12	2.41E-10
2649	3582	0.526859	4.07E-12	2.89E-10
4624	4319	0.53037	4.42E-12	3.12E-10
105300	83860	0.482635	4.45E-12	3.13E-10
4151	3604	0.518447	4.65E-12	3.25E-10
18	6	0.228819	5.23E-12	3.64E-10
5300	5957	0.547623	6.07E-12	4.20E-10

985	881	0.463972	6.32E-12	4.35E-10
14201	14958	0.520554	6.69E-12	4.58E-10
1467	1500	0.525818	7.08E-12	4.83E-10
1216	1209	0.479446	7.13E-12	4.84E-10
380	315	0.467413	8.48E-12	5.73E-10
451	475	0.436247	9.47E-12	6.36E-10
1034	1194	0.504562	1.18E-11	7.91E-10
4304	5177	0.514474	1.33E-11	8.86E-10
2595	2948	0.539262	1.34E-11	8.88E-10
3367	3463	0.526553	1.43E-11	9.46E-10
1004	1228	0.517156	1.50E-11	9.84E-10
4718	4513	0.53996	1.52E-11	9.84E-10
1628	2018	0.507161	1.51E-11	9.84E-10
1015	1075	0.536383	1.52E-11	9.84E-10
4663	5485	0.54573	1.79E-11	1.15E-09
640	738	2.771146	1.90E-11	1.22E-09
9890	13661	0.530054	1.95E-11	1.24E-09
1077	952	0.485486	2.12E-11	1.35E-09
1005	1209	0.484622	2.35E-11	1.49E-09
568	626	3.135889	2.56E-11	1.61E-09
11625	10661	0.518995	2.83E-11	1.77E-09
25346	31732	0.54009	2.87E-11	1.79E-09
8279	9356	1.859655	3.07E-11	1.91E-09
68966	65818	1.908158	3.08E-11	1.91E-09
3278	2341	1.999778	4.04E-11	2.49E-09
4462	4254	0.538445	4.11E-11	2.52E-09
8465	9096	1.863735	4.26E-11	2.60E-09
3308	4721	0.578453	4.27E-11	2.60E-09
6837	7450	0.561738	4.47E-11	2.71E-09
3189	2357	0.543518	5.43E-11	3.28E-09
474	523	0.437776	5.75E-11	3.45E-09
4017	4166	0.526137	6.22E-11	3.72E-09
15	35	0.334287	6.91E-11	4.11E-09
3144	2703	0.553258	8.04E-11	4.77E-09
3418	3996	0.538074	8.17E-11	4.82E-09
4147	3371	0.568318	8.84E-11	5.20E-09
970	1247	0.520018	9.47E-11	5.54E-09
3270	3566	0.556239	1.03E-10	6.00E-09
138	145	0.36854	1.12E-10	6.51E-09
7893	8441	0.572982	1.14E-10	6.56E-09
96177	90574	0.5381	1.28E-10	7.39E-09
2602	2540	0.558647	1.31E-10	7.49E-09
5222	4219	1.848432	1.31E-10	7.49E-09
2907	2801	0.547975	1.51E-10	8.58E-09
21269	22404	0.527699	1.65E-10	9.35E-09
591	865	0.485458	1.78E-10	1.00E-08
6612	2375	1.774324	1.94E-10	1.09E-08
179	316	0.428508	1.98E-10	1.11E-08
1213	1287	0.50497	2.05E-10	1.14E-08
1198	1177	0.494205	2.38E-10	1.32E-08
2901	2280	2.010884	2.52E-10	1.39E-08



2018	1719	0.546946	2.55E-10	1.40E-08
297	92	0.380095	2.70E-10	1.48E-08
7220	7528	0.569637	2.73E-10	1.49E-08
1586	1864	0.580136	2.81E-10	1.53E-08
621	758	0.523151	3.12E-10	1.69E-08
2206	1580	2.136192	3.75E-10	2.02E-08
1655	1722	0.52142	3.92E-10	2.11E-08
26199	19237	1.754557	3.99E-10	2.14E-08
2423	2030	1.838214	4.07E-10	2.17E-08
1239	1352	0.519154	4.07E-10	2.17E-08
1774	2254	0.582775	4.17E-10	2.21E-08
9461	7848	1.796221	4.47E-10	2.36E-08
17366	16694	0.535761	4.53E-10	2.39E-08
784	679	0.480243	4.60E-10	2.41E-08
57	86	0.359677	4.79E-10	2.50E-08
114	85	0.329154	5.40E-10	2.81E-08
304	237	0.396453	5.72E-10	2.97E-08
10989	14443	0.555679	5.76E-10	2.97E-08
1581	1926	0.558575	5.96E-10	3.06E-08
111	180	0.35975	6.21E-10	3.18E-08
1317	1142	0.564926	6.40E-10	3.27E-08
16146	17006	1.73838	7.36E-10	3.75E-08
880	986	0.516834	7.43E-10	3.77E-08
1333	1216	2.190063	7.47E-10	3.78E-08
725	620	0.505775	7.59E-10	3.82E-08
6379	7817	0.572608	7.77E-10	3.90E-08
972	897	0.477292	8.18E-10	4.09E-08
981	740	2.351861	8.29E-10	4.13E-08
190	241	0.421372	9.12E-10	4.53E-08
3287	3448	0.557295	9.70E-10	4.80E-08
905	762	0.486835	9.92E-10	4.89E-08
565	549	0.486037	1.09E-09	5.34E-08
16615	16614	0.559092	1.09E-09	5.34E-08
3725	3515	0.571955	1.20E-09	5.83E-08
2228	1883	2.023486	1.21E-09	5.90E-08
134864	147591	0.553494	1.24E-09	6.00E-08
17602	16278	0.539891	1.28E-09	6.17E-08
29038	36474	0.5449	1.39E-09	6.66E-08
28489	21120	0.551795	1.52E-09	7.27E-08
2179	2075	1.815929	1.68E-09	8.01E-08
25659	27553	1.725271	1.72E-09	8.20E-08
17024	16541	1.776064	1.75E-09	8.30E-08
35934	43407	0.575725	1.88E-09	8.89E-08
365	460	0.498243	2.07E-09	9.74E-08
101	126	0.46902	2.26E-09	1.06E-07
748	817	0.49395	2.41E-09	1.13E-07
155	160	0.481073	2.43E-09	1.13E-07
307350	299080	0.567812	2.49E-09	1.16E-07
1078	852	2.215156	2.64E-09	1.22E-07
9536	10426	0.573322	2.67E-09	1.23E-07
2684	2295	0.640151	2.88E-09	1.33E-07

100	66	0.171491	3.41E-09	1.57E-07
45675	48588	0.555898	3.52E-09	1.61E-07
67478	54529	1.738194	3.60E-09	1.64E-07
3427	3196	0.571122	3.76E-09	1.71E-07
1200	992	0.594438	3.93E-09	1.78E-07
109	101	0.357834	4.01E-09	1.81E-07
2701	3805	0.635951	4.03E-09	1.81E-07
2325	2138	0.561821	4.14E-09	1.86E-07
2590	2454	0.566315	4.24E-09	1.90E-07
1124	835	0.514594	4.35E-09	1.94E-07
2668	2447	0.580778	4.50E-09	2.00E-07
1175	1445	1.977472	4.51E-09	2.00E-07
19334	18272	0.563753	4.54E-09	2.01E-07
1490	1265	2.12827	4.80E-09	2.11E-07
8062	8258	1.75489	4.97E-09	2.18E-07
4859	4581	0.581177	5.44E-09	2.38E-07
570	978	0.489824	5.67E-09	2.47E-07
1272	1513	0.575713	6.20E-09	2.70E-07
4029	4521	0.559301	6.44E-09	2.79E-07
6	4	0.126959	6.72E-09	2.89E-07
1369	1467	0.559367	6.70E-09	2.89E-07
490	498	0.5257	6.96E-09	2.99E-07
5916	5676	0.576855	7.00E-09	3.00E-07
288933	360085	0.603266	7.11E-09	3.03E-07
2232	2568	1.876598	7.53E-09	3.21E-07
3136	2133	1.809299	7.65E-09	3.24E-07
1126	1231	0.598923	7.64E-09	3.24E-07
9290	11764	0.60256	7.74E-09	3.26E-07
906	885	0.518724	8.37E-09	3.52E-07
63258	55092	0.563374	8.51E-09	3.57E-07
4025	2870	0.598413	8.85E-09	3.70E-07
416	400	2.578321	9.76E-09	4.07E-07
2593	2296	0.539295	1.03E-08	4.28E-07
1217	1484	0.508587	1.12E-08	4.64E-07
2249	1877	0.564575	1.19E-08	4.93E-07
2255	2314	0.571308	1.21E-08	4.98E-07
7557	6506	0.592182	1.22E-08	5.00E-07
17516	14118	0.560175	1.31E-08	5.35E-07
8584	10536	0.60834	1.32E-08	5.37E-07
21273	18910	1.717582	1.34E-08	5.46E-07
229	188	0.391591	1.41E-08	5.71E-07
173	88	0.544163	1.41E-08	5.71E-07
23725	24990	1.730902	1.46E-08	5.90E-07
26928	20285	1.683988	1.57E-08	6.31E-07
3219	3134	0.586413	1.64E-08	6.59E-07
214	293	0.472287	1.77E-08	7.07E-07
98	106	0.364093	1.82E-08	7.27E-07
2100	2041	0.598667	1.84E-08	7.34E-07
58123	59327	0.580034	1.87E-08	7.41E-07
2472	2836	0.571157	1.88E-08	7.43E-07
2982	2465	1.791386	1.90E-08	7.50E-07

3865	3366	0.575167	1.96E-08	7.73E-07
3312	2798	1.776594	2.01E-08	7.88E-07
5301	5389	0.606355	2.24E-08	8.75E-07
4993	5560	0.616401	2.25E-08	8.80E-07
7432	6644	0.596906	2.27E-08	8.83E-07
627	626	0.499625	2.34E-08	9.06E-07
762	866	0.559813	2.35E-08	9.09E-07
5600	5221	0.589818	2.66E-08	1.03E-06
923	783	0.545063	2.77E-08	1.06E-06
916	985	0.541048	3.00E-08	1.15E-06
7622	7240	0.627043	3.10E-08	1.19E-06
2805	2911	0.607188	3.22E-08	1.23E-06
2296	2121	0.577274	3.34E-08	1.27E-06
859	949	0.545579	3.34E-08	1.27E-06
5451	3953	1.699076	3.48E-08	1.31E-06
6826	6438	1.696463	3.48E-08	1.31E-06
31869	31897	1.654917	3.61E-08	1.36E-06
36212	29237	0.589302	3.91E-08	1.47E-06
8019	5997	1.673556	4.12E-08	1.54E-06
198	20	3.691076	4.50E-08	1.68E-06
658	787	0.574532	4.92E-08	1.83E-06
40146	35146	1.716952	5.11E-08	1.90E-06
9371	8226	0.613366	5.83E-08	2.16E-06
135	123	0.409921	5.98E-08	2.21E-06
1393	1286	0.552592	6.06E-08	2.23E-06
9213	7154	1.640578	6.17E-08	2.27E-06
14077	12981	0.583971	6.47E-08	2.37E-06
1948	1835	0.600276	7.61E-08	2.78E-06
1123	686	0.535014	7.67E-08	2.80E-06
17	46	8.124916	8.08E-08	2.94E-06
19185	12412	1.579898	8.13E-08	2.95E-06
3297	2944	1.77393	8.44E-08	3.06E-06
233	297	0.454683	8.57E-08	3.09E-06
73	153	0.455726	8.64E-08	3.10E-06
131	131	0.407645	8.64E-08	3.10E-06
7846	7295	0.59997	8.70E-08	3.11E-06
3734	3227	1.686872	8.69E-08	3.11E-06
328	425	0.541167	8.83E-08	3.15E-06
1746	1317	0.59519	8.97E-08	3.19E-06
199	302	0.459882	9.08E-08	3.22E-06
4570	4414	0.614337	1.02E-07	3.62E-06
1172	1037	0.531883	1.03E-07	3.64E-06
181	253	0.455931	1.09E-07	3.82E-06
29036	26711	1.632573	1.09E-07	3.84E-06
75	74	5.211167	1.15E-07	4.01E-06
16961	22691	1.658762	1.16E-07	4.06E-06
610	1050	0.555211	1.17E-07	4.07E-06
3392	3892	0.617005	1.19E-07	4.14E-06
36741	37628	1.650095	1.21E-07	4.18E-06
13317	14762	0.603823	1.24E-07	4.28E-06
29960	29382	0.583222	1.31E-07	4.52E-06

4425	4542	1.675378	1.31E-07	4.52E-06
13495	10671	1.629834	1.38E-07	4.72E-06
10428	8593	1.546285	1.38E-07	4.72E-06
21233	18791	1.688795	1.43E-07	4.89E-06
14606	13118	1.625395	1.58E-07	5.38E-06
6994	7373	1.674424	1.60E-07	5.44E-06
727	564	0.502319	1.62E-07	5.51E-06
1683	1717	0.59979	1.67E-07	5.65E-06
528	56	3.261279	1.69E-07	5.70E-06
5334	4863	0.618719	1.83E-07	6.17E-06
242	300	0.519043	1.85E-07	6.22E-06
455	621	0.498957	1.90E-07	6.37E-06
55904	56569	1.631859	1.96E-07	6.54E-06
281	304	0.485217	1.96E-07	6.54E-06
34877	39455	1.727293	1.99E-07	6.62E-06
1189	1289	0.584305	2.03E-07	6.75E-06
2170	2259	0.60353	2.04E-07	6.77E-06
3645	3409	1.620981	2.16E-07	7.14E-06
12041	13932	0.613021	2.22E-07	7.33E-06
826946	790539	0.611442	2.25E-07	7.40E-06
58	158	0.505243	2.33E-07	7.64E-06
3146	2629	1.758641	2.46E-07	8.05E-06
225	116	3.287888	2.55E-07	8.32E-06
24977	20238	0.574551	2.59E-07	8.44E-06
331	296	0.525165	2.59E-07	8.44E-06
1761	1710	0.59677	3.12E-07	1.01E-05
3998	3585	0.596714	3.13E-07	1.01E-05
3489	3393	0.619445	3.14E-07	1.01E-05
22703	20932	1.629904	3.18E-07	1.02E-05
19706	18117	0.61365	3.19E-07	1.02E-05
4083	4229	0.621196	3.21E-07	1.03E-05
4488	4885	0.623189	3.23E-07	1.03E-05
9355	9650	1.581621	3.30E-07	1.05E-05
4	7	0.171527	3.39E-07	1.08E-05
142889	189007	0.598039	3.45E-07	1.10E-05
3873	4676	0.647262	3.51E-07	1.11E-05
2311	2319	0.590724	3.53E-07	1.12E-05
523	820	0.612721	4.05E-07	1.28E-05
2471	2393	0.568491	4.11E-07	1.29E-05
491	452	0.528881	4.39E-07	1.38E-05
4212	3399	0.61025	4.57E-07	1.43E-05
36384	30161	0.597839	4.80E-07	1.50E-05
10829	11734	0.63809	4.84E-07	1.51E-05
3815	4096	0.648098	4.88E-07	1.52E-05
1643	1704	0.61045	4.91E-07	1.53E-05
1526	1658	0.59883	4.92E-07	1.53E-05
16856	14202	1.587413	4.94E-07	1.53E-05
217	299	0.481447	4.98E-07	1.54E-05
245	175	2.954632	5.06E-07	1.56E-05
4679	4094	1.642394	5.15E-07	1.58E-05
994	880	1.968103	5.18E-07	1.59E-05

1969	2118	0.610095	5.20E-07	1.59E-05
9936	10057	0.633615	5.23E-07	1.60E-05
646	722	0.534848	5.29E-07	1.61E-05
8843	8882	0.630054	5.36E-07	1.63E-05
6117	5826	0.641999	5.41E-07	1.64E-05
515411	469013	0.611594	5.61E-07	1.70E-05
109757	112602	0.606529	6.11E-07	1.85E-05
936	1026	0.659902	6.26E-07	1.89E-05
608	718	0.538771	6.37E-07	1.92E-05
364148	320366	1.613114	6.44E-07	1.93E-05
25	56	14.11515	6.65E-07	1.99E-05
3682	4586	0.65423	6.71E-07	2.00E-05
3665	3431	1.58423	6.71E-07	2.00E-05
13807	12497	1.61094	6.80E-07	2.02E-05
1703	1490	0.603421	6.86E-07	2.04E-05
12854	13749	1.531563	6.99E-07	2.07E-05
729	683	0.556431	6.98E-07	2.07E-05
93244	88323	0.618963	7.21E-07	2.13E-05
7506	6395	1.589255	7.34E-07	2.16E-05
534	641	0.555138	7.57E-07	2.22E-05
538	624	0.556088	7.73E-07	2.27E-05
5028	4915	0.633138	7.81E-07	2.29E-05
4756	5043	0.660416	7.84E-07	2.29E-05
9012	9143	1.564666	7.90E-07	2.30E-05
423	398	0.528087	7.89E-07	2.30E-05
542	548	0.524143	7.94E-07	2.30E-05
2794	2433	1.666771	8.18E-07	2.37E-05
16756	17314	0.60194	8.37E-07	2.42E-05
9603	7003	1.518909	8.65E-07	2.49E-05
711	545	1.907073	8.77E-07	2.52E-05
8106	8033	0.645297	9.38E-07	2.69E-05
24096	23519	0.62705	9.44E-07	2.71E-05
521	777	0.592687	1.04E-06	2.98E-05
11094	10863	0.648634	1.05E-06	3.01E-05
3877	2860	1.630854	1.07E-06	3.04E-05
63262	54790	1.58593	1.08E-06	3.08E-05
673	521	2.095154	1.08E-06	3.08E-05
10786	9130	1.562806	1.11E-06	3.13E-05
8834	9575	0.641006	1.13E-06	3.18E-05
10028	8783	1.56733	1.16E-06	3.26E-05
729	721	2.113981	1.20E-06	3.38E-05
8999	9202	1.602228	1.22E-06	3.43E-05
491	398	0.585434	1.23E-06	3.44E-05
7873	6244	1.516863	1.23E-06	3.45E-05
1158	1213	0.616849	1.26E-06	3.52E-05
2061	3115	0.656542	1.26E-06	3.52E-05
3153	3614	0.630288	1.28E-06	3.55E-05
3184	2466	0.611067	1.28E-06	3.56E-05
1490	1359	0.598056	1.33E-06	3.68E-05
120	532	2.304135	1.33E-06	3.69E-05
21666	19251	1.520744	1.34E-06	3.69E-05

30232	31076	1.554803	1.37E-06	3.77E-05
1285	1271	0.610256	1.38E-06	3.80E-05
819	743	0.552159	1.51E-06	4.15E-05
1903	2001	0.624058	1.52E-06	4.16E-05
3471	3171	0.655133	1.52E-06	4.17E-05
8568	7714	1.535538	1.53E-06	4.17E-05
22999	18262	1.499849	1.56E-06	4.25E-05
10728	10020	1.570953	1.57E-06	4.26E-05
5011	4293	1.548887	1.58E-06	4.29E-05
1715	1617	1.748736	1.62E-06	4.37E-05
24220	21852	0.609289	1.66E-06	4.47E-05
12338	12645	0.642786	1.70E-06	4.57E-05
31760	32983	0.617917	1.74E-06	4.68E-05
575786	501970	0.627586	1.75E-06	4.69E-05
85030	71962	0.609864	1.79E-06	4.81E-05
273	226	0.513634	1.88E-06	5.02E-05
4202	4737	1.578589	1.90E-06	5.07E-05
56107	54455	0.619637	1.92E-06	5.12E-05
5301	6442	0.667686	1.94E-06	5.16E-05
1373	1258	0.671386	1.97E-06	5.22E-05
5544	5822	0.663582	1.97E-06	5.23E-05
10225	10090	1.578584	1.98E-06	5.25E-05
17440	18351	0.628194	2.03E-06	5.35E-05
2914	3120	0.63113	2.16E-06	5.68E-05
176	168	0.467271	2.19E-06	5.75E-05
29	50	0.416548	2.25E-06	5.91E-05
7365	7601	1.548097	2.37E-06	6.21E-05
35562	27437	0.62149	2.40E-06	6.28E-05
502	526	2.255337	2.49E-06	6.49E-05
3194	3194	0.642882	2.52E-06	6.56E-05
3103	3144	0.635212	2.60E-06	6.75E-05
11520	9778	1.497045	2.61E-06	6.78E-05
44409	42253	1.565753	2.76E-06	7.16E-05
9203	8213	0.645137	2.82E-06	7.29E-05
17985	14503	1.512405	2.85E-06	7.36E-05
5995	5614	1.557608	2.88E-06	7.41E-05
871	928	0.622467	2.91E-06	7.49E-05
5834	5292	0.644944	2.93E-06	7.52E-05
11405	11330	0.656756	2.98E-06	7.64E-05
223	212	2.531637	3.09E-06	7.90E-05
4116	4418	0.682424	3.17E-06	8.11E-05
4095	3682	0.623027	3.24E-06	8.27E-05
122	158	3.255359	3.30E-06	8.39E-05
2190	2401	0.636267	3.32E-06	8.43E-05
6700	6471	1.472031	3.43E-06	8.70E-05
7821	6661	0.64626	3.44E-06	8.71E-05
1137	1045	0.593567	3.49E-06	8.80E-05
3650	3394	1.636468	3.49E-06	8.80E-05
886	989	0.592259	3.50E-06	8.80E-05
3834	3378	0.642537	3.58E-06	9.00E-05
4262	4085	1.528981	3.71E-06	9.30E-05

93	111	0.429572	3.79E-06	9.50E-05
14203	13723	0.644349	3.85E-06	9.61E-05
67	37	0.39799	3.87E-06	9.65E-05
3663	3165	0.648521	3.91E-06	9.73E-05
49957	49861	1.59696	3.91E-06	9.73E-05
6291	5215	1.532792	4.00E-06	9.92E-05
842	640	0.573722	4.08E-06	0.000101
77	80	0.375388	4.10E-06	0.000101
702	976	0.615185	4.11E-06	0.000101
21653	19191	1.467439	4.11E-06	0.000101
20216	17716	1.568651	4.13E-06	0.000102
23387	21125	0.641017	4.17E-06	0.000102
22	58	0.380524	4.18E-06	0.000102
1513	1681	0.617878	4.24E-06	0.000104
1803	2047	0.619263	4.33E-06	0.000106
8603	8224	0.648501	4.46E-06	0.000109
29377	24232	0.636573	4.46E-06	0.000109
236	213	0.529712	4.52E-06	0.00011
144943	146964	0.646029	4.55E-06	0.00011
301	285	0.55986	4.58E-06	0.000111
21215	16232	1.549092	4.64E-06	0.000112
82	89	0.446467	4.76E-06	0.000115
72	34	0.362734	4.88E-06	0.000118
831	814	2.059654	4.89E-06	0.000118
2763	3508	0.666494	4.98E-06	0.00012
1443	1557	0.639708	5.08E-06	0.000122
270	217	2.573918	5.17E-06	0.000124
36663	37428	0.612756	5.28E-06	0.000126
245244	198121	0.618849	5.30E-06	0.000126
10141	10034	0.670166	5.41E-06	0.000129
152	78	3.183435	5.41E-06	0.000129
6005	5491	0.665358	5.51E-06	0.000131
15867	16059	0.642911	5.57E-06	0.000132
21	21	25.43325	5.70E-06	0.000135
1996	1357	1.565582	5.92E-06	0.00014
12650	12410	1.464032	6.01E-06	0.000142
12696	12028	0.649368	6.09E-06	0.000143
4764	4687	1.546704	6.21E-06	0.000146
3522	2982	0.659139	6.24E-06	0.000146
1230	1311	0.612003	6.36E-06	0.000149
2020	2020	0.635549	6.44E-06	0.000151
18543	14705	1.463117	6.51E-06	0.000152
3408	2874	0.67237	6.56E-06	0.000153
2848	2813	1.582579	6.61E-06	0.000154
11019	9446	1.482452	6.73E-06	0.000156
2416	3406	0.670712	6.99E-06	0.000162
1413	1271	0.631344	7.03E-06	0.000163
6115	7306	0.687539	7.58E-06	0.000175
25342	21993	0.650333	7.65E-06	0.000176
444	436	0.575514	7.67E-06	0.000177
79948	75814	0.634223	7.71E-06	0.000177

10869	9367	0.666024	7.80E-06	0.000179
4131	3546	1.58483	7.79E-06	0.000179
2249	2857	1.622479	8.03E-06	0.000184
7704	6257	1.470411	8.13E-06	0.000186
236	181	0.522281	8.53E-06	0.000195
3733	4467	0.69404	8.62E-06	0.000196
666	705	0.605549	8.83E-06	0.000201
5138	4619	1.579247	8.95E-06	0.000203
1644	1482	0.643909	9.02E-06	0.000204
690	812	0.637365	9.12E-06	0.000206
746798	606163	0.663489	9.15E-06	0.000207
2902	2308	0.680703	9.35E-06	0.000211
11571	9293	0.639939	9.54E-06	0.000215
4357	4588	0.676719	9.66E-06	0.000217
4355	5109	0.680534	9.66E-06	0.000217
9660	9697	0.651951	9.87E-06	0.000221
592	578	0.636481	1.03E-05	0.00023
1008	1561	0.62515	1.05E-05	0.000233
4162	3713	1.569402	1.05E-05	0.000233
2512	2779	1.600104	1.05E-05	0.000234
21323	18344	0.658438	1.05E-05	0.000234
16147	14094	1.510853	1.07E-05	0.000237
333	282	0.522658	1.07E-05	0.000238
1724	2029	0.62266	1.14E-05	0.000252
567	862	1.906287	1.14E-05	0.000252
2619	2467	0.639713	1.15E-05	0.000254
3476	3278	0.607262	1.19E-05	0.000262
314	399	0.561493	1.20E-05	0.000264
867	868	0.581513	1.20E-05	0.000264
690	674	0.573684	1.21E-05	0.000265
24756	25356	0.661819	1.22E-05	0.000267
4047	4225	1.543667	1.24E-05	0.000271
2397	1674	0.653178	1.27E-05	0.000278
18885	17922	1.513822	1.30E-05	0.000282
32	16	0.20998	1.29E-05	0.000282
6834	6527	1.502366	1.32E-05	0.000287
10402	9256	1.496727	1.35E-05	0.000293
1404	1310	0.642353	1.36E-05	0.000293
2222	2818	0.647134	1.38E-05	0.000298
2541	2813	0.670965	1.39E-05	0.000299
885	823	0.6088	1.40E-05	0.000302
2361	2554	0.643484	1.46E-05	0.000315
8618	8155	1.47064	1.54E-05	0.000332
34	102	0.476981	1.57E-05	0.000336
1481	1655	0.631782	1.58E-05	0.000339
37	5	0.29347	1.63E-05	0.000347
3857	4694	0.677206	1.63E-05	0.000347
17231	14383	1.478709	1.86E-05	0.000396
15908	15627	0.649572	1.87E-05	0.000398
8962	10529	1.506047	1.92E-05	0.000407
6432	6671	0.667034	1.93E-05	0.000408



1315	1290	0.641172	1.93E-05	0.00041
288	320	0.57731	1.97E-05	0.000417
1440	146	1.795101	2.00E-05	0.000422
1333	2390	0.686367	2.01E-05	0.000425
2175	2913	0.708379	2.05E-05	0.000431
7546	8008	1.49438	2.14E-05	0.00045
221	145	2.678577	2.17E-05	0.000457
4773	4765	0.683573	2.24E-05	0.000469
2969	3217	0.653405	2.24E-05	0.000469
813	739	0.633244	2.32E-05	0.000485
3569	3416	0.666208	2.32E-05	0.000485
11864	12309	1.504841	2.35E-05	0.000489
2095	2437	0.682302	2.40E-05	0.0005
12018	11158	0.683428	2.43E-05	0.000504
115	122	2.510757	2.43E-05	0.000504
37590	45754	1.477406	2.45E-05	0.000508
571	605	0.601123	2.47E-05	0.000511
6706	7335	0.696231	2.60E-05	0.000536
11931	11554	0.68277	2.62E-05	0.000541
14138	12388	1.428348	2.65E-05	0.000545
2586	2682	1.527341	2.65E-05	0.000546
5067	5437	0.684216	2.70E-05	0.000554
1051	1092	0.636097	2.77E-05	0.000568
5426	4585	1.468169	2.90E-05	0.000593
925	1002	0.604118	2.91E-05	0.000594
185	366	0.564435	2.93E-05	0.000598
235	318	0.550357	2.93E-05	0.000598
2182	1701	1.61987	2.97E-05	0.000604
13616	12092	1.43624	2.97E-05	0.000605
13254	12758	0.662606	2.99E-05	0.000607
7195	5871	1.473573	3.10E-05	0.000628
3175	2724	0.62496	3.11E-05	0.000629
4606	4623	0.68604	3.13E-05	0.000633
9922	8340	1.463594	3.14E-05	0.000634
12612	12081	0.686256	3.15E-05	0.000636
5505	6410	0.706569	3.16E-05	0.000636
1224	1368	0.656409	3.21E-05	0.000645
438	376	0.596237	3.28E-05	0.000658
99	84	0.52869	3.31E-05	0.000664
15544	16399	0.655806	3.41E-05	0.000682
170761	227702	0.690682	3.53E-05	0.000704
13466	12723	1.449428	3.55E-05	0.000708
1114	1228	1.619955	3.59E-05	0.000715
2207	2511	0.709403	3.69E-05	0.000735
622	634	1.746357	3.73E-05	0.000741
2972	3388	0.676385	3.77E-05	0.000748
2154	2934	0.725148	3.78E-05	0.000748
101	56	0.620422	3.79E-05	0.00075
8606	7471	0.678213	3.90E-05	0.000771
11524	10553	1.49286	3.94E-05	0.000776
5214	4953	0.64903	3.95E-05	0.000778

71	40	0.451535	3.96E-05	0.00078
758	740	1.800926	3.99E-05	0.000783
3183	3391	0.678162	4.03E-05	0.00079
4101	4059	0.698685	4.04E-05	0.000791
5442	5814	1.446193	4.04E-05	0.000791
4488	4798	0.68592	4.09E-05	0.000799
1111	704	1.809352	4.11E-05	0.000802
6711	6623	0.675381	4.16E-05	0.00081
21401	17451	1.421935	4.21E-05	0.000819
1579	835	1.62578	4.25E-05	0.000825
83131	58767	0.662882	4.26E-05	0.000826
6135	6733	0.678764	4.28E-05	0.000829
2042	2068	0.652434	4.36E-05	0.000843
3383	3446	0.694952	4.40E-05	0.00085
5444	6251	0.676809	4.52E-05	0.000872
1121	1095	0.625526	4.65E-05	0.000895
2616	2381	0.663498	4.69E-05	0.000902
2428	2480	1.560887	4.69E-05	0.000902
297	364	0.614547	4.74E-05	0.00091
6372	4286	1.453245	4.76E-05	0.000913
6594	5539	1.440349	4.80E-05	0.000918
4710	4379	1.429754	4.89E-05	0.000934
2584	2920	0.662461	4.92E-05	0.000939
7040	8123	0.708323	4.95E-05	0.000942
3611	3057	1.479504	4.94E-05	0.000942
14524	13032	1.383404	4.98E-05	0.000947
7573	6917	1.465789	5.07E-05	0.000961
6215	6672	0.722259	5.14E-05	0.000975
8696	8145	0.676487	5.19E-05	0.000981
1721	1956	0.647956	5.19E-05	0.000981
2995	3506	0.691516	5.23E-05	0.000988
4457	4557	0.699804	5.46E-05	0.00103
28842	26913	0.651637	5.51E-05	0.001038
23239	20958	1.47756	5.54E-05	0.001042
7585	9471	0.698141	5.57E-05	0.001045
15569	16694	1.520481	5.57E-05	0.001045
1390	1511	0.661309	5.66E-05	0.00106
22777	22117	1.459511	5.68E-05	0.001062
68	102	0.462973	5.81E-05	0.001086
597	676	0.610513	5.85E-05	0.00109
33907	28493	0.664811	5.88E-05	0.001095
5705	3996	1.461206	5.96E-05	0.001109
19168	17809	0.677114	6.05E-05	0.001124
150	14	2.759202	6.15E-05	0.001141
421	471	0.626216	6.16E-05	0.001142
289	377	0.596071	6.20E-05	0.001147
1363	1338	0.69346	6.30E-05	0.001164
5890	5360	1.439477	6.33E-05	0.001168
1217	1224	0.682123	6.40E-05	0.00118
3426	2827	1.410042	6.47E-05	0.001191
17164	14351	1.43556	6.57E-05	0.001208

4228	4254	1.491168	6.72E-05	0.001235
1058	1054	1.640884	6.87E-05	0.00126
5693	5722	0.70078	7.19E-05	0.001316
16968	15268	1.41112	7.26E-05	0.001327
5970	6399	1.448182	7.33E-05	0.001339
663	710	0.586889	7.47E-05	0.001362
832	838	1.722244	7.51E-05	0.001369
8733	7751	1.400528	7.65E-05	0.001391
2185	3009	0.704424	7.67E-05	0.001393
2362	2348	0.704263	7.83E-05	0.001421
5883	5821	1.419194	7.89E-05	0.00143
11067	13521	0.7275	8.04E-05	0.001453
460	429	0.642939	8.04E-05	0.001453
779818	801731	0.700087	8.33E-05	0.001504
25273	22116	1.318175	8.42E-05	0.001519
956	882	0.617167	8.45E-05	0.001521
1186	1204	0.679852	8.51E-05	0.001529
3411	2957	1.464733	8.51E-05	0.001529
757	685	0.597439	8.74E-05	0.001568
86656	66344	1.441733	8.85E-05	0.001586
3043	3132	0.702978	8.87E-05	0.001587
9496	10250	0.717199	8.95E-05	0.001599
15081	15079	1.370787	9.04E-05	0.001613
1288	1194	1.527736	9.07E-05	0.001617
1863	1851	1.540052	9.24E-05	0.001645
26627	21518	1.395097	9.71E-05	0.001725
925	935	0.671756	9.71E-05	0.001725
74659	60060	1.431961	9.73E-05	0.001725
8024	9905	1.428341	9.80E-05	0.001736
2204	1672	1.570619	9.89E-05	0.00175
138	83	2.566547	9.92E-05	0.001754
7402	9283	0.724976	9.98E-05	0.001755
2364	1579	1.565541	9.98E-05	0.001755
626	721	1.772515	9.98E-05	0.001755
4100	3809	0.710994	9.99E-05	0.001755
5444	5239	1.461882	1.00E-04	0.001756
6176	6476	0.707905	0.000101	0.001774
1689	1570	0.671567	0.000102	0.00178
7348	6480	1.359857	0.000103	0.001803
21804	21249	1.444174	0.000104	0.001817
78660	73042	0.672775	0.000104	0.001817
852	1028	0.665494	0.000105	0.001822
650	759	0.627413	0.000106	0.001848
367	635	0.652435	0.000107	0.001856
9543	7470	1.398447	0.000107	0.001857
3577	3206	1.418051	0.000109	0.001884
3946	4509	0.726264	0.000109	0.001887
12391	10631	1.357896	0.000111	0.001913
774	611	1.720307	0.000113	0.001956
8987	10077	1.400773	0.000114	0.001975
4448	4365	1.427238	0.000115	0.001983

13121	11925	1.386219	0.000116	0.002
1350	1515	0.684985	0.000116	0.002
12758	11164	1.428844	0.000119	0.002041
18598	18025	1.422803	0.000119	0.002048
322	459	0.650831	0.00012	0.002049
1801	1908	0.677053	0.000121	0.002079
558	443	1.660264	0.000123	0.002104
1407	1466	1.55615	0.000129	0.002195
516	717	0.610941	0.000132	0.002245
171	148	0.526973	0.000133	0.002256
1449	1679	1.553721	0.000133	0.00226
9492	10236	0.720925	0.000136	0.002317
2052	1748	1.355339	0.00014	0.002381
5207	5627	1.430763	0.000145	0.002455
865	911	0.641189	0.000147	0.002489
428	343	0.603409	0.000151	0.002551
10966	8798	1.279955	0.000154	0.002602
2110	2448	0.660175	0.000155	0.002616
2026	1962	0.674051	0.000156	0.002632
1649	2020	0.709101	0.000157	0.002642
2058	2022	1.513296	0.000159	0.00266
777	907	0.63937	0.000158	0.00266
0	0	0.047364	0.000162	0.002712
656	658	0.638426	0.000162	0.002712
2068	2438	1.501241	0.000163	0.002725
1544	1478	0.665944	0.000165	0.00276
764	716	0.689727	0.000168	0.002804
1444	1923	0.718006	0.00017	0.002825
3665	4097	0.703968	0.000173	0.002878
4131	3973	1.388349	0.000175	0.002907
5863	3171	1.425511	0.000175	0.002908
2901	3180	1.430172	0.000177	0.002941
2038	1928	0.698291	0.000182	0.003019
6475	7239	0.722902	0.000184	0.003048
6324	5336	1.441453	0.000185	0.003055
383	490	0.692257	0.000187	0.003091
7979	7191	1.396156	0.000189	0.003111
567	696	0.66689	0.000189	0.003111
15531	12878	1.376044	0.000189	0.003111
497	211	1.862144	0.000191	0.003139
1143	903	1.610003	0.000193	0.003165
3175	3002	0.719319	0.000193	0.003167
1416	1245	0.66682	0.000196	0.003212
3967	4391	1.398584	0.0002	0.003271
350	226	0.579302	0.000206	0.003361
12444	16077	0.718032	0.000207	0.003379
1430	1534	0.673957	0.00021	0.00342
19494	19487	0.706958	0.000211	0.003428
275	275	0.550748	0.000211	0.003434
47492	43164	0.690532	0.000211	0.003434
16220	14879	0.700084	0.000216	0.003506

1601	1928	0.683788	0.000216	0.003506
2026	1557	0.739051	0.00022	0.003553
13272	10782	1.390043	0.000227	0.003663
1791	1981	0.664483	0.000227	0.003667
1449	1576	0.682894	0.000236	0.003813
807	707	0.648022	0.000239	0.003843
11803	9863	1.355633	0.00024	0.00386
4106	3811	1.440807	0.000244	0.003921
6778	5584	1.424126	0.000245	0.00394
2243	2307	1.444465	0.000248	0.003975
14089	11595	1.366542	0.000252	0.004037
4930	3246	1.351954	0.000253	0.004042
6344	5002	1.397153	0.000253	0.004042
9673	9753	0.723831	0.000255	0.004071
11649	10645	1.379148	0.000257	0.004101
3733	4901	0.763846	0.000261	0.004159
10780	9402	1.360321	0.000262	0.004165
2200	2798	0.687463	0.000263	0.004174
381	567	0.636178	0.000264	0.004188
686	609	1.735767	0.000265	0.004198
3109	3019	0.700271	0.000266	0.004219
1137	1233	0.687661	0.000269	0.004255
26397	25121	0.691963	0.000269	0.004256
8023	8942	1.423913	0.000271	0.004283
6132	5818	1.434185	0.000273	0.004298
11502	10386	1.410832	0.000274	0.004313
2597	1538	1.447071	0.000282	0.004428
982	1168	0.736049	0.000282	0.004437
4653	4546	1.389858	0.000283	0.004444
2117	1859	1.50389	0.000286	0.004486
429	49	2.518274	0.00029	0.004545
339	439	1.843655	0.000292	0.004575
11210	11216	0.712404	0.000293	0.00458
6136	5026	1.377137	0.000295	0.004597
83723	63490	0.698147	0.000304	0.004734
935	822	0.678216	0.000304	0.004734
488	515	0.651451	0.000305	0.00475
3309	3114	1.45296	0.000308	0.004783
2124	1493	1.489366	0.000309	0.004794
4813	5053	0.707393	0.000309	0.004794
41392	32685	1.381636	0.000312	0.004826
9619	7522	1.357519	0.000317	0.004904
12507	10073	1.346276	0.000317	0.004904
16607	13100	0.691738	0.000319	0.004927
5028	5092	0.722275	0.00032	0.004927
6054	4834	1.431164	0.000328	0.005047
2892	2639	1.405069	0.000339	0.005221
3718	4033	0.72778	0.00034	0.005224
8565	8761	1.363359	0.000344	0.005269
3790	3756	0.73623	0.000344	0.005269
2847	2287	0.702028	0.000348	0.005326

569	446	0.663881	0.000353	0.005406
10845	13322	1.429383	0.000357	0.005453
1384	1494	0.688232	0.000357	0.005457
4207	3977	0.73801	0.00036	0.005483
81865	74547	1.413457	0.000362	0.005515
4861	5498	0.729856	0.000364	0.005523
16579	14712	0.709908	0.000364	0.005523
13929	13036	0.710343	0.000363	0.005523
1686	1640	0.718663	0.000366	0.005558
13215	7558	0.695365	0.00037	0.005607
3477	3011	0.692265	0.000372	0.005623
4984	4612	1.373477	0.000381	0.005742
21165	17367	0.71468	0.00038	0.005742
1513	1815	0.692799	0.000381	0.005742
251708	282278	0.727841	0.000384	0.005783
45555	34602	1.310137	0.000387	0.005826
5609	4780	1.36753	0.000389	0.005855
7417	6293	1.360301	0.000392	0.005883
1072	1226	0.705058	0.000395	0.005925
1381	1496	0.6911	0.0004	0.005991
18450	23293	0.735406	0.0004	0.005993
4509	3628	0.688317	0.000403	0.006024
22798	21174	1.368176	0.000404	0.00603
2692	2536	0.70154	0.000412	0.006148
169	146	2.007847	0.000412	0.00615
195	283	0.618633	0.000416	0.006191
1469	1668	1.393954	0.000416	0.006191
4028	3353	1.373136	0.000419	0.006233
5133	4405	1.385667	0.00042	0.006242
112550	146194	1.377524	0.000422	0.00625
21872	14986	1.334227	0.000422	0.00625
2855	4427	0.788813	0.000423	0.006258
7667	5324	1.346257	0.000423	0.006258
486	562	1.782028	0.000426	0.006291
7618	6404	0.735735	0.000429	0.006333
744	438	1.619817	0.00043	0.006338
35347	43464	0.727386	0.000432	0.006359
54266	50551	1.40286	0.000434	0.006377
45780	44946	1.40972	0.000434	0.006384
26120	29967	0.727854	0.00044	0.006456
266	264	0.578154	0.000443	0.006488
832	925	0.651062	0.000444	0.006499
5611	5260	1.404207	0.000447	0.006544
11351	11225	1.37666	0.000454	0.00664
7385	5713	1.255108	0.000456	0.00664
2975	2666	1.399111	0.000455	0.00664
4714	5391	0.745924	0.000456	0.00664
72	67	0.496777	0.000462	0.006727
13470	11085	1.360305	0.000463	0.006739
6514	5751	1.353988	0.000464	0.006747
2068	1739	0.684033	0.000467	0.006783

2202	1115	1.394768	0.000468	0.006785
456	402	0.601845	0.000471	0.006814
17151	17359	0.731996	0.000477	0.0069
33281	40128	0.689633	0.00048	0.006932
2711	2608	0.71135	0.000483	0.006961
1008	1052	0.674378	0.000483	0.006961
1422	967	1.450202	0.000489	0.007046
17177	15906	1.343412	0.00049	0.007046
1500413	1476784	0.734191	0.000502	0.00722
2398	1537	1.499458	0.000503	0.007223
5432	6089	0.749796	0.000504	0.007224
1982	1270	1.456324	0.000505	0.007235
4295	4165	1.321868	0.000506	0.00725
683	526	1.681988	0.000507	0.007259
7506	6078	0.703099	0.000511	0.007298
1835	2163	0.685624	0.000511	0.007299
7151	5715	1.325413	0.000515	0.00733
28782	29784	1.352705	0.000514	0.00733
9362	8817	1.404068	0.000519	0.00738
3969	4193	1.383314	0.000529	0.007504
3568	3301	0.699521	0.000529	0.007504
2845	2551	1.389721	0.000529	0.007504
4845	5201	1.372764	0.00054	0.007652
22710	23458	1.374628	0.000548	0.007752
5183	4267	1.363477	0.000559	0.007913
1743	1593	1.406076	0.000565	0.007963
8458	9166	1.377016	0.000565	0.007963
528	524	0.650567	0.000564	0.007963
2880	2859	1.413341	0.000566	0.00798
3842	2785	1.38898	0.000571	0.00803
59363	49633	0.706601	0.000572	0.008036
23700	17318	1.34808	0.000579	0.008135
917	1286	0.714006	0.000582	0.008166
11	36	7.844013	0.000586	0.008208
2349	2595	1.404774	0.00059	0.008265
6894	8227	0.775662	0.000606	0.008467
1487	1743	0.718492	0.000606	0.008467
20	39	0.429591	0.000614	0.008567
66993	73750	0.731696	0.000618	0.008614
15	26	0.563905	0.000625	0.008711
2074	2109	1.41078	0.000637	0.008869
1287705	1257836	0.732563	0.000643	0.008939
13575	14670	0.748615	0.000644	0.008951
8639	8026	0.714221	0.000646	0.008959
4469	3813	1.382896	0.000647	0.008967
14428	14699	1.333605	0.000649	0.008995
555	493	0.701914	0.00065	0.008995
4063	3486	1.372216	0.000651	0.008997
10960	13821	0.727366	0.000653	0.009009
5266	4385	1.388784	0.000654	0.009009
219	178	2.025239	0.000652	0.009009

149	132	0.596617	0.000656	0.00904
443	530	0.652538	0.000657	0.009043
8612	8085	0.727193	0.000661	0.009087
551	272	1.738112	0.000663	0.009108
100	91	0.590403	0.000665	0.009116
5840	6288	0.6994	0.000671	0.009194
9687	8596	1.367161	0.000679	0.009293
301	325	0.622972	0.000685	0.009371
1057	1258	1.56078	0.000689	0.00942
100	125	0.499033	0.000714	0.009735
525	686	0.674281	0.000714	0.009735
1540	1519	1.379188	0.000716	0.009752
11202	14867	1.370491	0.000723	0.009834
6849	4897	1.326804	0.000724	0.009845
1413	1073	1.454545	0.000726	0.009858
464	353	1.752142	0.00073	0.009894
87	88	0.534472	0.00073	0.009894
2008	2006	1.504566	0.00073	0.009894
5755	4925	1.350556	0.000734	0.009928
83620	79651	0.708973	0.00074	0.009948



Gene Name	Ethanol-1	Ethanol-2	Ethanol-3	Ethanol-4
hsp70l	342	458	328	383
hsp70	193	198	193	168
zgc-174006	155	154	126	168
klf11a	2674	3102	2538	2716
zgc-92590	4704	6888	4087	3653
slc1a4	1426	1625	1133	1137
lepb	13	10	3	10
ces3	4315	6059	4461	3647
opn1mw1	39932	40266	36622	31005
zgc-154142	13043	16288	11959	12069
cyp24a1	57170	44094	32291	35088
cyt1l	151345	147856	103974	108550
zgc-154020	907	558	1835	1288
zgc-136854	10	10	34	21
si-ch73-6k14.1	56	98	105	173
fabp10a	69809	69991	46894	47072
sesn2	850	886	785	695
cyp4v2	6635	6868	4133	4382
gip	498072	493815	399790	406198
ahsg	4863	4264	3936	3957
gtpbp1	6092	6597	4637	5243
atf3	2112	3083	2933	4627
fosl1	441	940	1384	2358
ins	1900	1764	1555	1447
ela2	260724	263652	254875	311061
zgc-110266	899	811	680	731
LOC562139	92091	103156	85750	106721
opn1sw1	218147	206419	163796	163500
zgc-136461	150291	170652	146960	175670
dpys	3840	4074	3243	3266
timp2b	931	1085	772	904
rh50	1415	1421	1297	1028
cyp2ad2	10529	10613	8173	8420
ela3l	258811	265120	225532	277306
zgc-110377	4431	3957	2964	3024
fabp1b.1	6884	5200	5223	4367
zgc-112199	52	50	27	48
zgc-112992	574	968	500	586
socs3b	4217	4250	4143	5727
zgc-92137	94724	102600	74785	80317
pmepa1	96463	97653	93218	97182
si-ch211-107o23.1	882	958	702	678
zgc-152911	379	380	595	574
scd	297	357	215	246
opn1sw2	47407	45347	37424	34227
gc	15539	14586	10206	11273
zgc-110064	18120	23985	13975	11315
comtd1	567	656	516	442
aldh1l1	18988	17436	11536	13205
zgc-171537	810	1189	802	609
klf11b	1473	1703	1671	1951

pklr	81464	76057	66167	74709
slc4a1	2974	4004	3366	3055
grk7a	32695	34893	23717	26291
psat1	1528	1436	1137	1197
zgc-171704	30	24	25	23
ctsbb	7276	7075	6224	7255
fabp2	43206	43607	31343	30228
zgc-113413	511	447	484	454
vgll4	131091	133340	123107	129150
tars	4431	4923	2986	3505
dnajb1b	926	954	672	789
opn1lw2	34071	34756	30630	23090
alas2	1513	1780	1801	1580
si-dkey-14d8.6	16405	17658	12165	15977
si-dkey-14d8.7	1226	2104	1291	1395
ugt1ab	6725	6757	4447	4940
igfbp1b	55094	42523	40755	45868
tfr1a	1216	1745	1308	1426
ugt1a5	4995	4970	3352	3765
habp2	2343	2533	1725	1701
ugt1a1	7692	7447	5394	6074
ebi3	724	726	631	649
cyp2k6	460	410	339	351
zgc-172140	49	54	177	67
zgc-158404	821	583	468	525
il1b	62	105	151	215
zgc-174689	480	404	438	403
ugt1a2	4792	4820	3268	3673
ugt1a4	5067	5074	3465	3836
sparcl1	3979	3913	2667	3347
si-ch73-46j18.5	3599	4010	3093	3204
ugt1a6	4668	4669	3119	3532
cpa2	129	138	135	137
zgc-165502	3692	4030	3494	3832
ugt1a7	5194	4975	3577	3988
ezh2	980	937	731	766
elna	1050	980	1022	1138
zgc-161979	21800	27635	17959	16554
agxt2l1	4918	5180	3884	3881
zgc-172225	1116	1497	993	1435
f7i	1161	1344	1200	1030
si-ch211-234p6.13	1110	1488	976	1423
ela2l	392196	415305	353740	436070
zgc-162925	1356	1562	1154	1154
hspb9	2798	3221	2370	2281
zgc-112146	1224	1258	945	940
zgc-136551	3126	3158	2354	2587
hspa5	14211	16366	12324	13938
grifin	6275	6422	4310	4531
cryaa	21642	23332	16713	18112
hmgcra	2725	3190	2370	2045
cpa5	249679	263304	210840	240228

zgc-110286	102	98	83	94
mipa	26187	28395	21384	25172
six7	14680	19774	17415	21217
LOC796384	1854	2157	1608	1381
gys2	8033	7666	5292	6692
ptrh1	263	286	240	222
odc1	8694	11737	10503	9667
hsp47	310	336	372	392
cyt1	431021	470813	331157	370117
zgc-194887	872	1003	922	909
rdh1	8767	7620	6713	7209
cyp2y3	9853	9345	7428	7806
si-dkey-127j5.5	8603	8423	6417	6941
mthfd2	376	422	269	299
mipb	48135	49188	37895	47303
zgc-172142	755	829	526	572
LOC798846	269	322	287	207
zgc-162630	9157	8982	7610	9369
zgc-153027	451	383	420	453
yars	4998	5649	3778	4490
zgc-193613	140395	157887	119538	118354
LOC568900	19502	20580	16890	20942
lepa	27	27	25	31
agxtb	44419	43741	34786	37113
cldn5b	1088	1008	937	1113
icn2	18945	17391	11772	11404
c3b	4454	5554	4358	3919
LOC559192	228	259	210	191
abp1	13809	13412	10603	10705
cish	7796	7666	6577	8415
zgc-172290	12	13	12	8
cyp2x9	1866	2037	1271	1593
rbp2b	970	989	803	753
hyou1	2412	2760	2043	2218
tfa	51083	53937	45250	44850
zgc-100868	8175	7429	7634	5869
gh1	2493	1753	1830	2156
zgc-91963	62	50	62	72
LOC100002960	3131	3168	2408	2630
gpx4a	34257	33177	22956	24207
grk1b	4476	4509	3159	3161
LOC567547	2500	2907	1892	2082
pde6c	73855	80380	51297	56213
zgc-163057	69	63	80	49
si-ch211-81a5.8	3280	3649	2736	3110
faah2b	1649	1642	1215	1196
krt4	1979557	2037156	1651093	1558234
rbp2a	11530	11332	8023	7916
hspa4a	4382	5542	4035	4600
uox	8844	7991	5006	6051
zgc-153913	1522	1710	1286	1405
zgc-112160	170399	183744	159404	177897

zgc-172051	6342	6672	5728	5673
slc1a8b	3559	4232	2670	2444
dpyd	21663	22140	16275	18608
cat	18028	17614	13638	14453
gabra6a	2238	2476	1532	1491
LOC570613	1975	2096	1736	1504
cyp3a65	183083	155550	122452	127923
elovl2	1386	1562	1143	1137
mep1b	4497	4746	3436	3196
junb	4617	7236	13025	20179
asah2	9237	9427	7135	7381
igf2b	5032	4885	3738	4287
serpine1	886	1270	1240	1335
igfbp2a	5936	5939	5133	5032
si-ch211-234p6.12	6866	5165	4705	4962
hbae1	4581	6927	6576	5274
zgc-92406	1176	1434	917	910
slc1a2a	6595	7174	5226	6305
gnat2	52277	53150	38463	38734
hmga1b	3814	4164	3062	3513
stat3	8416	8116	6133	6857
aqp10a	1138	1082	705	815
hmbsb	573	602	453	492
zgc-103559	1192	1211	985	911
zgc-153932	1686	1718	2346	1316
ctsl.1	35226	33966	31842	38708
brf1a	1362	1319	985	1039
zgc-73075	60949	63652	39735	49880
cyp2k18	884	1110	835	684
zgc-114180	3093	3197	2383	2415
LOC567512	766	732	420	638
cpa1	31358	29352	23404	29291
gadd45aa	1000	980	1133	1312
phgdh	3724	3938	2718	2876
zgc-162331	2725	2936	2392	2558
ndrg1l	13026	11052	10231	12257
ahrra	2145	1782	1317	2652
zgc-172079	4446	4149	3888	4532
tfe3a	2245	2631	1596	1918
mycl1a	1049	1245	1098	1312
zgc-136337	30952	34466	30613	37240
irf11	1262	1242	1470	1564
aqp8a.2	3314	3288	2606	2802
mmp9	1372	1276	1321	1100
arr3l	117184	121623	73662	87968
apoa1	139449	163036	103994	101297
zgc-55406	93607	90278	67835	71880
agmat	2020	2132	1713	1828
hsp90a.2	10450	11800	11184	11242
cp	22762	21659	18918	19642
foxo3a	36416	37765	29038	31287
cyp2n13	9608	10394	7417	7891

pde6h	145741	135741	97637	112195
slc25a3a	5649	5836	4492	4373
rlbp1b	14526	14933	10897	10720
zgc-92474	8649	8814	8188	7860
cpb1	114328	128646	109466	129347
zgc-92041	1041688	1058240	902919	1053489
zgc-77938	3315	3056	2445	2945
pm20d1.1	5082	5185	3790	3961
pdia4	1450	1326	1338	1236
prox2	1228	1365	941	1087
stc1l	3852	3287	2414	3015
zgc-172260	85	92	38	89
cx50.5	659	768	477	412
cell	35341	40486	30512	35087
zgc-66382	709348	759453	628942	734042
zgc-114170	6788	5657	5089	5872
pygl	5063	4623	3594	4084
zgc-153096	436	381	286	378
LOC100005630	1402	1467	1403	1288
zgc-172253	2173	2160	2000	2022
epyc	4513	4516	4709	5112
zgc-110200	6702	7209	5448	6370
slc2a2	7147	6933	5259	5673
si-ch211-219a15.3	699	724	512	633
zgc-110409	4340	5096	3748	3838
si-dkey-24111.1	3210	3373	2523	2856
lpin1	105260	105810	75642	83875
sult1st2	1272	1552	859	925
zgc-136909	965	973	821	639
gata1a	219	174	178	172
sesn1	148204	130685	96097	111253
guca1c	5682	5727	4474	4848
si-dkey-45m5.4	541	546	465	501
ugt5b3	1038	982	823	941
zgc-113028	6582	6905	5475	6585
angptl3	2464	2734	1778	1625
crygm2c	1227	1022	625	850
cd36	21944	22392	16690	17784
acta1b	116714	128857	107861	82499
lpl	54539	51499	37998	48995
zgc-109930	27029	23584	22164	23180
c6	1664	1851	1255	1687
cx44.1	1351	1579	1102	1187
aldob	625512	605730	423034	454154
fbp1a	12417	12196	9384	10416
zgc-171534	1708	1644	1373	2143
tmem195	5654	4813	3612	4962
dnmt6	5254	5321	4257	4680
prph2b	22194	19934	14795	16201
zgc-92763	2336	2473	1778	1513
LOC563738	1851	1924	1580	1771
try	844084	896245	753199	871336

upb1	2798	2763	2130	2046
asns	2786	3104	2087	2291
pparaa	8482	8454	6249	7588
fep15	5877	6052	5969	5828
gchfr	2576	2501	1733	1896
ttr	6625	6169	4004	4120
zgc-114142	10903	10716	8417	9440
tfr2	1390	1495	1220	1200
cars	2804	2929	2159	2414
si-ch211-284e20.8	1802	2056	1671	1892
gstal	13335	11559	9068	9213
LOC573653	6482	10099	8069	7896
zgc-162356	14569	13445	9965	10054
aars	37709	37753	26984	31005
cdk5r2b	7964	8138	5962	7180
zgc-153443	6979	8266	4716	5426
zgc-101540	4530	4998	3322	3595
zgc-63614	1373	1197	790	744
mycn	9452	9350	6807	7306
ankrd1b	10384	12999	8868	8901
mep1a.2	3490	3976	3139	3302
dio1	2671	2405	2006	1794
serpina1	24331	22029	15765	18928
stc2	2539	2583	1792	1936
guca1e	521	820	538	448
il12a	23	25	17	35
si-busm1-118j2.5	6435	9864	7802	7696
zgc-63647	4520	4665	3579	4149
rangap1	711	836	532	536
apobl	426856	519131	328930	341313
xbp1	28155	30457	24006	26764
mmp14b	5005	4944	4026	4804
hig1	4816	5602	3939	3815
zgc-66484	2982	2901	2100	2276
manf	518	587	490	540
LOC100006238	4268	4540	3575	3895
hmbsa	739	830	621	654
arg2	81087	81891	53126	59911
il34	17	13	23	16
acox1	8976	8430	6354	6847
amy2a	129916	146864	102994	129938
gcga	1194	1087	970	924
mep1a.1	5599	6660	4592	5272
fabp6	20884	22234	13439	12559
zgc-110340	3861	4691	6852	7961
gnb3b	45453	46755	40369	41106
LOC564868	2763	2802	1984	2476
slc34a2a	4848	5112	4222	4468
zgc-171802	83	118	106	132
ch25h	46	154	228	426
xpnpep2	2512	2871	2172	2360
desmb	5384	5435	4517	4294

scinla	20395	20644	13683	14280
keras	1828	1956	1312	1237
zgc-194131	26394	30101	21193	21206
tdo2a	9354	8837	6550	7240
cx28.9	5773	5441	3841	4169
cx32.3	2889	3002	2382	2445
zgc-162337	7850	6668	5036	4512
zgc-153311	154	202	141	141
zgc-158823	1482	1383	1083	1171
e2f7	526	514	481	447
ugt5b4	1168	1049	1002	998
wars	1971	2187	1479	1627
cad	26921	29957	21651	25718
mpv17l2	552	649	469	500
LOC798872	7191	4592	3425	3690
zgc-92739	6781	6083	5953	6305
jun	18610	21084	24539	30863
zgc-56085	13854	15305	11606	11110
zgc-195063	4773	5668	4744	5059
icn	42110	36969	30776	28914
zgc-112210	439	422	260	362
smarca5	4982	5764	4063	3673
a2ml	20660	21920	15026	15579
pth2	595	668	467	414
vdrb	9004	9892	5882	6961
gnb5b	6627	6998	5038	5263
cyp7a1a	9271	9577	5985	7795
bbc3	4626	4152	3308	3585
mao	14646	15401	10923	11921
slc38a4	27685	24772	18081	17477
adh8b	10939	10417	6764	7755
pvalb5	5373	5290	3340	3551
zgc-110354	871	923	1379	1176
zgc-85752	2523	2414	1576	1982
rhcg1	14272	16183	12081	12822
invs	853	809	746	862
lctlb	4518	4366	2883	3615
atp1a1a.4	147031	146177	103120	110565
LOC564844	846	845	722	721
pnp4b	19301	20640	14969	16158
rhcg2a	10179	11422	8513	9059
cpb2	928	903	635	731
zgc-153394	470	591	282	339
zgc-111983	17617	20377	20550	14793
pck2	21402	21457	15566	15656
calrl	1884	1940	1814	1832
mmp13a	635	528	573	722
il6st	5592	5197	3822	4458
mtp	7025	7245	5464	5905
aldh9a1a	91381	90114	67875	74029
bcl6ab	3225	3012	2427	2638
pla2g12b	10531	12071	8683	8797

zgc-56382	15048	17235	17312	12476
LOC100005645	745	891	615	724
zgc-136410	1434	1430	1142	1082
zgc-153286	3245	2930	2741	2928
slco1d1	10334	9892	7173	8048
zgc-113651	32	20	32	24
scp2	22831	22172	17435	20470
guca1d	488	319	235	228
igfbp1a	35358	27623	26569	27606
LOC556575	3395	3879	2775	2849
si-ch211-244a23.1	1406	1350	1391	1160
syncrpl	4998	5514	4138	4586
LOC100003647	504	445	741	907
alg5	2745	2717	2032	2529
guca1g	682	509	409	522
zgc-112282	5154	5246	3478	4015
hspd1	15584	17329	12749	14565
hao2	2649	2805	2133	2362
zgc-153102	1065	1071	731	949
si-dkey-53p21.1	815	771	748	1013
cpox	497	522	355	447
rtn4rl2a	3287	3835	3419	2771
zgc-174688	161	113	52	74
gpd1b	10011	9827	8753	7659
zgc-175088	4012	3485	2923	2892
ctsh	3434	3511	2820	3181
crot	3906	3998	3268	3446
zgc-113232	6666	6301	5696	5404
ugt5d1	436	445	330	285
zgc-77082	1582	1455	1284	1433
atf4b2	22206	23465	18711	22737
si-ch211-235o23.1	1975	1851	1293	1547
hells	814	941	678	645
cyp2p8	1967	2043	1385	1560
si-ch211-215l11.5	45891	36313	28565	25571
slc43a1b	4016	4486	3019	3582
si-ch211-105d11.2	2456	2624	1789	1975
tm4sf5	2129	2146	1502	1682
fbn2b	6965	7821	6329	7345
mcm6	3092	3682	2878	3116
epb41	950	1028	764	729
cldn11a	2288	2084	1994	2109
LOC100005476	3426	3149	2280	2170
zgc-153258	2354	2294	1952	1909
slc7a3	26343	27193	20146	19624
zgc-136930	166214	162224	151045	129936
zgc-174917	441	274	839	742
s100s	3637	3175	2332	2199
LOC797776	702	737	688	655
dhrs1	7005	6454	5407	5948
iars	44813	48368	34512	41338
comta	1481	1557	1283	1421



zgc-114041	692	627	450	553
zgc-110053	1725	1861	1243	1412
ipo8	5300	5649	3814	4168
calua	1604	1792	1555	1678
ociad2	1135	1092	880	819
si-rp71-1p14.10	1944	1737	1402	1700
si-dkeyp-1h4.3	171	154	159	160
zgc-92533	1157795	1167444	960295	883392
zgc-173961	2409	2348	1760	1460
crygmx	29609	29577	21082	26014
junbl	8023	13793	37588	61707
lim2.5	5407	5020	4176	4709
vil1l	28020	25685	21878	22340
nmnat1	2393	2365	1979	2649
zgc-55420	61318	58074	56195	55684
lta4h	7353	8154	5559	5398
kdelc1	351	297	296	256
hbbe2	14278	16751	14871	13346
slc5a9	946	894	811	649
klfd	172	193	158	143
socs2	3699	3936	3372	4149
atp1a1a.2	15367	14352	11192	10035
c6ast3	7811	7546	6282	7022
ctrl	331510	375347	281792	314191
hbbe1.1	8229	12083	11791	9058
dio2	226	258	233	154
pts	4897	5534	5917	5930
crygm1	275	238	146	183
cyp3c4	944	1002	706	741
nus1	1991	1978	1512	1636
cpeb4	5120	5176	3616	3744
si-ch73-252g14.4	3758	5065	3712	3654
MGC173646	1547	2415	2096	1783
si-dkey-52k20.7	87450	96261	62299	76818
si-ch211-133l5.7	3280	3310	2426	2534
zgc-114201	6704	6944	6010	5768
sardh	4356	3935	3113	3321
bfb	933	758	485	682
acsl5	16495	16964	11917	12830
socs8	1328	1398	1188	1413
zgc-153896	1048	1127	818	854
zgc-162132	39998	41613	44263	33567
agxta	7178	6595	4421	5057
itgb1b.2	3394	3557	3008	3489
zgc-153920	57	24	37	27
inhbb	1784	1820	1762	2022
tat	48637	39214	33538	39951
chchd2	7901	8298	7037	7381
ms4a17a.17	1438	1064	1133	1131
si-ch211-260g14.8	509	590	406	427
cebpb	9129	12552	27074	39076
zgc-77778	1821	1434	1152	1311

upp2	4126	4072	2927	3594
si-dkey-25e12.3	101	114	100	87
col10a1	3973	4697	6012	5574
tmx3	1329	1378	985	981
hk2	1847	1930	1522	1809
hsd11b3a	2138	2445	1738	1961
wee1	915	1000	767	955
zgc-103580	66	46	56	56
ctrb1	1054649	1102788	884909	1020468
si-dkey-69o16.5	6129	5038	4135	3750
zgc-63938	28459	21579	19371	16614
si-ch211-262h13.5	2199	1988	1414	1485
abcg2a	40292	36360	25014	28266
zgc-162301	1792	2064	1543	1937
si-dkey-119m7.4	3493	3311	3218	3204
zgc-113317	46	48	19	13
si-ch211-12e13.7	363	173	100	113
ppp4cb	3727	4042	3124	2779
abcg8	2027	2074	1330	1463
arl3l1	2039	2011	1138	1184
dhrs3a	2444	2151	1679	1940
zgc-56429	3589	3636	2998	3124
stk24a	1233	1281	919	1023
urod	877	923	645	725
si-ch211-244h7.6	974	874	687	570
gstt1b	1709	1411	1350	1280
zgc-174888	1145	1100	827	911
phyh	4799	4945	3571	3601
zgc-162969	103	92	30	60
si-ch211-140f21.1	8902	9359	6258	7393
zgc-165473	820	823	825	753
akr1a1a	326	277	234	217
shbg	2430	2380	1821	1994
proc	1822	1596	1313	1525
zgc-56407	649	752	528	596
LOC100003209	4299	3647	3348	4119
anxa2b	2320	2328	1793	2006
zgc-153846	2930	2619	1251	2004
zgc-92380	9839	10287	9077	9942
prmt5	2684	3134	2099	2548
rybpa	3611	3793	2819	2974
si-dkey-57a22.9	199	200	176	249
arl3l2	1571	1659	1362	1290
sst1.1	3233	3183	2639	2898
bokb	527	520	430	451
atad3b	10361	11308	9439	11690
zgc-171226	210	148	136	97
zgc-136820	3523	3688	2781	2889
si-ch211-286m4.4	16045	16984	12433	13380
riok3	7907	7752	5450	6043
neu3.3	1098	904	607	710
zgc-162126	10397	10519	9339	10792

cahz	3083	3473	2850	2841
cyp2x8	1480	1567	865	854
slc16a12b	8653	8495	6054	7812
actl6b	357	330	293	332
acsf2	3402	3410	3145	3329
dnajc21	815	896	703	735
socs1	2151	1543	1155	1757
hspa9	25334	26668	18549	21436
ambpl	14633	14361	11585	12219
mcm6p	2711	2997	2210	2230
zgc-101050	3811	3699	2549	2680
dpagt1	1463	1350	1100	1237
crygn1	3941	3684	2286	2764
zgc-161973	1137	1159	741	803
itpk1	7220	7238	5564	6174
zgc-56518	4788	4443	3763	3501
rcv1	27913	24545	16225	17468
rab13	427	437	326	340
igfbp2b	976	1188	890	952
zgc-136545	2801	2918	2370	2328
tectb	199	143	241	152
LOC567396	431	376	343	473
slc6a6	13584	13520	8942	10572
mogat2	3716	3475	2600	2545
sars	11743	12858	8535	9258
dap1b	4621	4083	3410	3505
hsd17b4	23632	23589	19878	20664
mcm4	7911	8869	6684	6571
zgc-172158	929	999	700	648
pkhd111	8741	6954	5865	5927
sst2	473	424	379	432
zgc-123207	1017	975	759	974
zgc-103585	1298	1170	968	1061
LOC100006793	1703	1960	1360	1551
f7	4203	4205	3817	3377
col8a1a	2049	1936	1997	1887
aca1	2206	2418	2010	1962
drd4b	568	635	447	477
apoa4	43823	47367	35144	36667
zgc-136353	1405	1479	1081	1170
aldoa	2642	2803	1818	1706
wnt9b	574	704	676	802
zgc-175280	8618	9024	6852	8107
gadd45ba	30205	20659	24909	28799
mmp30	11163	11011	8733	8676
lox	954	938	768	874
hmga1a	40425	43947	38769	38443
si-ch211-244h7.5	551	446	292	287
LOC100007703	56	81	38	38
si-dkey-25o1.2	1787	1814	1586	1747
sc5dl	257	229	245	239
vegfaa	534	554	402	483

hspb1	1875	1811	1407	1426
zgc-153036	2427	2289	1933	1970
pdzd3b	536	607	694	666
gamt	108635	115099	86462	86260
aldoab	189053	193822	144702	136240
zgc-86706	7726	8219	5568	6388
cd276	1050	1030	1013	1019
zgc-92712	619	644	485	473
pkm2b	107300	120234	97768	77114
amt	2766	2779	2332	2349
bcmo1	4048	4371	2941	2814
sec31a	7467	8294	6058	7276
ptgds	33457	31614	20147	25717
zgc-56292	443	482	480	435
dync1li2	2185	2372	1715	1756
ugt5a2	284	329	237	198
lox11	3334	3729	3043	3709
thns12	1096	1094	793	917
chaf1a	2784	3127	2524	2426
irf9	663	742	676	667
pdap1	2651	2614	2162	2486
si-dkey-190g11.3	321	272	237	261
gbp	11101	9834	9623	10638
krt5	785182	738026	696508	645929
ugt5a3	305	328	217	215
ces2	35207	34990	26603	27530
mcm5	3030	3626	2920	2857
fkbp9	876	1141	840	920
iclp1	536	471	486	297
farsb	10064	10462	7623	9248
atp2a2b	14904	16298	11198	12032
hbegfa	783	1040	1462	2305
zgc-110447	300	347	241	273
zgc-92040	1547	1463	1223	1333
rbb4	3239	3855	2935	2716
slc5a1	20311	20775	14671	16847
hsp90b1	12067	13103	9966	10412
cav2	2661	2254	1952	2113
pmm2	254	292	210	168
sgpl1	30379	30798	22145	24349
rtn4rl2b	3494	3346	2430	2429
slc5a5	407	433	360	395
fstl1a	1183	1142	850	924
slc39a3	2092	1988	1960	2130
exosc2	1475	1796	1234	1409
angptl7	2976	2666	2376	2322
moxd1	363	234	228	266
ephx1	2817	2512	1816	1927
zgc-55259	1586	1689	1329	1365
pgm1	17717	18522	13969	13632
nme4	1230	1220	893	790
prhoxnb	240	213	216	166

zgc-175221	5648	6189	3796	3852
crabp2b	1394	1604	1200	1586
LOC559803	4063	3578	2831	3026
pfkfb3	14160	15900	11230	9840
vsg1	4339	3996	3414	4096
tbx21	3924	4131	2379	3005
zgc-198195	1326	1439	1057	1272
slc2a10	184	241	157	255
zgc-101129	1085	976	753	575
zgc-92005	1360	1545	1252	1136
grwd1	3931	4298	2982	3512
hbae3	24391	34549	29222	23592
sec13	5305	5933	4173	4922
matn1	7775	8470	10298	10581
epha2	2256	2353	2222	2539
fbxo8	7079	6731	4904	5810
zgc-92479	22800	21220	19460	20358
mcm2	3936	4595	3567	3657
tmprss13a	1557	1583	1225	1384
sid4	14532	14430	11640	12118
mars	15340	16319	12839	15297
ssb	4071	4248	2913	3235
cfb	6160	7097	5017	4736
zgc-92903	2050	1993	1655	1731
crygm2b	738	564	395	500
kdr	2589	2430	1856	2260
rars	8774	9276	6244	7497
atp1b2b	6801	6740	4838	5396
lim2.1	5454	5427	3932	4815
ugt5e1	539	461	441	456
six6b	2942	3414	3329	3447
zgc-113183	787	891	527	546
si-dkey-91f15.1	484	482	472	679
cldn15la	5277	5100	4277	4644
f2rl1.2	567	631	888	1168
c6ast4	91614	104125	81153	90621
tnfb	90	104	77	113
ddx5	47944	52951	36234	41349
g6pca	3045	2683	2028	2139
si-ch211-89f7.1	1723	1790	1525	1764
c9	8052	7540	6035	5720
elovl4b	3126	3131	2588	2566
sult1st3	1870	1723	1161	1013
gch2	5584	7096	6332	5673
rho	403966	407542	376483	323232
zgc-100919	11241	11782	9705	10726
ipo9	4741	5202	3590	4002
si-dkeyp-95d10.1	3432	3276	3209	3334
si-dkey-31f5.1	4467	4556	3591	3971
ckmt1	20619	19871	16186	15401
dhrs9	6158	6407	4848	5160
ddc	3091	3665	2601	2839

zgc-194158	531	562	642	477
idh1	19271	16909	15650	17291
LOC792509	7853	7558	5390	6255
gpcpd1	11049	10727	6799	7148
foxq1	2990	3111	2796	3491
si-ch211-154o6.6	1072	1032	981	796
zgc-153024	1811	1913	1635	1675
farsa	14551	15149	11885	14027
aldh6a1	112549	106258	80579	89409
zgc-153115	941	1038	942	796
arrdc3b	24950	24574	21168	22908
snx10a	454	317	209	313
dhtkd1	31043	31970	25034	27915
zgc-92869	6734	5895	4932	5711
LOC798075	901	891	639	586
npvf	1044	840	799	575
slc2a9l1	79	46	65	64
si-dkey-21e7.2	6315	6136	4288	5004
mknk2a	8147	8214	5830	5676
rrh	1559	1612	1200	1291
tmem41ab	3653	3921	2979	3108
pdip5	2749	3262	2521	2565
dpp4	6728	6395	4884	5459
c11orf67	1566	1437	1022	1124
qars	2676	2605	1723	2359
crtac1	5257	4885	3570	3302
si-ch211-203l9.3	3823	4961	2744	3449
mettl7a	955	931	784	840
fabp11a	638	745	751	899
foxe3	156	232	161	193
zgc-92511	3084	3052	2719	2819
hgd	27238	24496	18764	21736
si-dkeyp-113d7.4	172359	176315	149764	106886
rcc1	969	996	727	848
atp1a1a.3	11163	10558	7876	7732
dao.2	2467	2441	1856	1940
acat1	24221	22803	17413	18487
cryba1a	4090	4365	3080	3500
cyp2p9	1242	1462	974	1274
zgc-113208	4597	4796	3378	4121
tmem56b	6667	7358	5621	5775
adm2	783	470	545	619
LOC797250	9074	9253	6448	7124
nrgnb	2841	2827	2105	2374
si-ch211-199m3.9	6336	6306	5171	5585
rrm2	891	948	829	548
ptgs2a	2081	2138	3842	5829
lim2.3	8645	8878	7150	8251
copb1	17612	18216	13125	13790
zgc-153788	1318	1291	829	1148
slc25a20	9702	9786	8539	8305
foxj1a	891	922	677	645

acad11	1734	1845	1640	1463
smc2	1347	1629	1334	1216
si-dkeyp-113d7.7	287245	253204	195836	189166
cry5	6420	6737	4187	4897
slc15a2	3810	3602	2777	3533
aacs	2751	2933	1916	2062
ubtd1	3271	3695	2855	3665
nbl1	3420	3132	3451	3208
sult2st1	1224	1364	851	798
scamp4	652	774	661	781
zgc-73230	5577	5642	4322	4375
anp32b	6918	7578	5225	5711
c3c	14305	15471	11217	12467
EIF2AK3	5205	5289	4291	5173
nme2a	1517	1318	855	823
aca2	8741	8928	8099	8262
kcnc3a	9147	10410	6423	6204
ezh1	7110	6632	4423	5065
slc6a5	1936	2270	1266	1169
abcf1	12921	14196	9563	12707
gpr39	16557	15357	15242	16625
zgc-153440	8083	7828	5946	6268
hsp90a.1	7370	8968	7742	7841
lgals2b	60631	59825	35458	32984
kars	34169	35267	23978	27883
kpna2	1121	1146	1055	930
rbfox1l	14820	15212	12563	13226
zgc-153997	20795	20940	21393	21673
mycl1b	5536	5891	4759	5425
abcg5	1908	2091	1315	1720
stam	6754	7021	5156	5879
ptges	385	343	324	416
zgc-113054	2129	2245	1946	1900
zgc-66125	1262	1357	1303	993
smc4	2225	2521	2575	1958
baxa	2912	3122	2531	2718
serpina1l	33852	30287	23386	27201
zgc-92113	8132	7470	5998	5693
cdk2ap2	1556	1678	1328	1502
si-dkey-239i20.2	1156	1244	938	967
si-dkey-19f23.2	695	796	486	386
kmo	2987	2855	1969	2447
zgc-65781	8273	8427	7997	8621
zgc-63505	1024	1066	716	807
phb	15249	16961	11355	12530
ada	38250	38043	26718	28547
krt18	54625	52138	40350	48974
EIF2AK1	2240	2355	1586	1799
irf3	286	258	196	207
zgc-136872	1460	1220	1064	1094
zgc-77650	2023	2093	1512	1654
serpinb1l3	29852	30658	24994	25530

zgc-103681	523	555	467	455
dnmt4	1721	2003	1518	1621
dnajb11	1246	1349	1033	1165
foxc1b	1533	1536	1903	2253
pgp	2965	2923	2187	1904
zgc-86586	226	224	186	222
bhmt	290997	277771	253459	262109
tmem86b	4908	4976	4318	4713
opn1lw1	152	111	155	135
psme3	2618	2747	1885	2013
cd74	310	301	215	180
zgc-63663	92183	96343	64644	69378
decr1	1402	1529	1361	1300
gsdf	297	249	256	262
sepp1a	191712	181692	149086	152280
bnip3	4478	4029	2800	3320
stap2b	704	674	608	592
actn1	5928	5868	5371	5109
hs3st3b1a	1470	1157	681	915
wu-fb12e11	4572	4357	3661	4244
ace2	42232	44602	34308	37204
ahr1b	3639	4696	3242	3663
akr1b1	9297	9631	7169	7366
tmem54	270	273	162	195
zgc-136902	1848	2203	1968	1972
sec22ba	853	846	686	798
slc16a9a	12268	12325	9441	9096
zgc-64043	6359	6443	4791	5433
kdelr2	4202	4469	3433	3665
dolpp1	1587	1967	1390	1411
zgc-100933	5382	5427	3778	4323
gcat	6825	6820	5533	5927
anxa1c	17576	15226	11840	13209
zgc-91957	3352	3854	3024	2658
gadd45g	6747	5896	4369	4564
slc25a47a	6441	6914	5228	6355
gngt1	4859	4628	3856	3032
sox4a	38444	36957	29937	30381
zgc-194626	50	65	47	28
slc23a1	1063	1196	880	1040
si-ch211-102c2.6	6261	5612	4672	4845
calub	613	652	531	569
cryba2b	136856	133729	97904	103258
foxo1b	785	1004	609	638
zgc-101030	759	813	618	668
cebpq	11192	10782	9158	9973
scn4ba	2564	2997	1570	1681
zgc-174908	2868	2563	2016	1972
exosc6	980	1099	948	1023
LOC796447	11128	9629	7827	7550
cnn2	5011	5570	4762	4894
si-ch211-244h7.4	473	413	302	273



pnp5b	3025	3172	2469	2147
nr0b1	1568	1208	1103	932
ssrp1a	2165	2248	1484	1660
ddt	3899	4100	3139	3595
epd	20677	16999	12634	13526
ifnphi1	9	4	4	14
ifrd2	4063	4804	3355	3947
zgc-101897	4237	3774	2996	3396
tmem49	2288	2506	1885	2085
tnni2a.1	9157	8213	6211	7341
si-dkeyp-94b4.2	368	411	373	364
zgc-172086	1965	2028	1515	1277
zgc-136871	2096	2203	1490	1627
adam8a	278	380	271	393
vtnb	4645	4443	3494	3519
ghrb	15345	15066	10057	12352
p4ha1	564	538	442	495
rgs9	3582	3566	3190	3577
si-dkey-205h13.1	10155	9172	5528	7187
opn4l	4456	4463	3083	3572
dnajc2	1707	1882	1288	1514
sag	8762	9049	6332	6116
acvrl1	2878	2729	2331	2729
cx23	1134	1412	1034	1162
uck2a	1718	1842	1454	1608
plxnd1	3365	2954	2806	3417
chpt1	15339	16287	13208	13900
fam63a	6021	5821	4605	4833
ntla	1607	1414	1372	1236
EIF4E1C	2029	2408	1544	1706
slc2a3	8793	9461	6178	6414
cyp2aa2	260	243	211	236
myoz2a	9258	9587	7306	7117
si-ch211-117n7.7	615	545	556	480
bcat2	13318	13772	9694	11650
ahsa1l	1523	1539	1127	1366
fgg	19622	20763	15080	17466
zgc-153038	972	825	558	696
zgc-112374	848	782	665	608
zgc-110294	1023	905	783	1045
wu-fi40b08	469	565	436	504
gfer	1148	1161	939	1076
myoz1b	26134	26049	19197	19518
zgc-56533	1868	1800	1507	1648
ifi30	3095	2785	2680	2694
adss	8124	8957	5860	6134
zgc-136850	819	915	628	649
zgc-153031	1317	1384	1059	1033
pbp	4736	5012	3382	3512
zgc-123218	274	240	271	269
zgc-136860	2592	2767	2094	2256
znfl2a	552	505	414	457

msna	8269	8389	6686	7633
lim2.4	35412	35073	27413	30295
smyd5	872	971	672	640
exorh	1281	1392	1182	1205
crygmx1	132	167	103	133
suz12a	1323	1521	930	1274
pm20d1.2	2660	3125	2152	2194
slc26a6l	577	487	440	583
si-ch211-212m21.5	4330	4437	3808	4330
arf1	4653	4869	3890	4059
plek2	669	726	729	478
acta2	37910	33600	28556	30617
dhrs11b	1534	1666	1156	1361
cpt1b	2951	3116	2031	1878
socs3a	11061	12690	18266	27621
aldh4a1	13242	14407	10491	11887
capn3	56965	56379	39337	45987
zgc-111821	936	854	1127	1364
cryba1l	391859	386209	288374	325030
serpinc1	14484	15034	9200	10142
cpa4	35112	40033	33958	35587
sult1st6	959	900	739	773
abcg2b	808	821	557	810
rrp9	2906	2970	2027	2400
tyms	355	419	342	327
cyb5r2	866	899	773	811
zgc-152945	1851	1687	1077	1152
msh6	3508	3716	2653	2943
mllt11	16411	18383	12282	12974
elov17b	1450	2259	3961	4993
agt	8486	7782	5517	5565
alg2	925	931	669	715
ulk1a	8759	7972	5617	6260
trib3	15730	14760	11870	13573
zgc-172059	2824	3033	2250	2466
pltp	7750	7212	4300	5580
jak1	9893	10396	7741	8627
sst3	3462	3424	2570	2803
copa	29692	30569	22226	23285
si-ch211-200o3.4	4916	4707	3690	4052
igfbp6b	1306	1191	1084	906
LOC100151110	10751	11134	8535	8949
stab2	694	686	548	655
ch25hl1.1	2079	2239	1645	2146
cryba1b	364972	358991	248019	292728
ppp2r2c	6437	6750	4403	4556
slc15a1b	31840	30676	24961	24408
irf7	547	503	502	414
mafg2	1785	1903	1269	1136
c8g	1095	1053	726	914
dlx4a	1100	1184	983	1274
f9	131	121	106	120

nrarpa	4144	4304	3827	4501
si-dkey-19f23.3	3929	3937	3333	3493
creld2	138	170	98	118
dnaja1l	1039	1202	1177	1352
zgc-172191	318	256	194	305
cyp19a1b	323	366	181	228
slc1a1	5613	5590	4239	4241
noc4l	2296	2709	1952	2217
agxt2	4613	4620	3451	3436
abhd2b	1276	1476	971	938
sod1	11492	10980	8163	9199
rgs20	1811	2138	1253	1457
scpp7	0	2	2	0
zgc-73311	5353	5337	3913	4197
si-ch211-51m24.3	9052	10336	7969	8976
zgc-77439	20423	19184	15400	16637
hps1	661	743	558	674
rdh5	4319	4870	3897	3778
tgm2	2859	2548	1960	2160
gfpt1	2243	2337	1893	1907
ptges3b	792	846	646	650
zgc-113291	855	899	526	503
f10	9467	9178	7392	8914
fgf19	219	212	202	260
sae1	846	936	751	757
hars	14009	14691	10132	12377
hspb8	2462	2564	1896	2215
rgs5a	4663	4383	3772	4492
dusp11	325	350	215	256
LOC100004138	2	1	2	0
zgc-66286	44181	43371	32018	33977
zgc-103663	44495	45518	33316	36284
cryba4	231658	228779	157977	174249
rgn	2577	2445	1907	2266
crygn2	319607	322705	265861	303835
ckba	13596	12703	10113	9900
kif11	1110	1180	1246	923
zgc-158340	2418	2521	1764	2068
lifrb	535	505	459	478
tp53	2060	2131	1744	1862
crygm3	228	219	139	136
thop1	894	823	669	604
cthl	917	625	629	865
acadm	23626	22895	16828	18467
etf1	19230	21831	15250	17300
c1qtnf4	10317	10210	7211	7360
zgc-154073	1793	1861	1148	1270
grn2	1170	1360	1424	829
zgc-165653	3166	3222	2400	2523
zgc-55307	14696	14188	9366	10034
tacc3	699	810	600	464
zgc-101744	6388	6254	4819	4734

nyx	1880	2284	1445	1726
slc16a3	6015	6285	4426	4138
txnipa	99925	94071	76032	69692
gnat1	12703	13659	10129	8654
igf2a	1598	1240	923	1013
zgc-172053	67	52	230	77
LOC559008	6458	7592	4057	4191
slc25a29	6897	8496	5285	6024
zgc-158845	29	16	18	6
zgc-162977	2118	1898	1518	1505
guk1	1865	1437	1111	1153
zgc-112257	13973	13154	11580	11651
zgc-195245	412	345	328	418
mych	34192	30802	35151	36947
lox12b	2701	2695	2201	2393
arcn1	4128	4035	3125	3212
samsn1b	2224	2843	2167	2493
aqp4	776	1067	579	692
si-ch211-214j8.1	7912	7520	5793	6394
zgc-85866	5221	6508	9033	14421
zgc-154041	4822	5450	3934	4250
btbd10a	9194	9357	7168	7771
dck	252	236	223	235
si-ch211-122l24.4	4	11	20	27
lrrc15	194	205	145	216
npy	1430	1428	998	1005
pvalb6	4627	4784	3249	3357
zgc-123244	362	405	343	416
LOC555692	2356	2964	2054	2734
zgc-85644	2082	2047	1319	1680
zgc-92744	21246	20442	14722	16155
plekhh1	633	833	466	578
atp2a1	2046828	2055447	1521291	1679082
LOC565375	1484	1528	885	920
zgc-153615	6333	6779	5265	5033
pvalb1	1026868	1018639	681010	677845
aurkb	873	911	802	757
LOC570474	98	168	83	99
ache	26920	28799	18744	18853
ca15c	422	401	722	554
mhc2dab	67	71	85	66
copg2	19653	19860	14943	15959
slco1f4	13	12	14	18
zgc-153118	10	7	1	3
pdzk1	36670	36756	30535	33054
klf15	23248	21412	15698	17993
zgc-56466	1782	2033	1723	1737
itm2cb	8744	8837	6839	5878
zgc-112407	1635	1610	1452	1599
rhd	271	313	279	349
tecrb	12152	12910	9606	9874
abcc2	40415	38825	31865	33982

si-dkey-236e20.6	845	856	598	916
zgc-110113	1236	1492	1269	1239
zgc-86896	16791	16580	15549	14210
lipc	791	826	579	824
ms4a17a.16	270	249	213	290
ldlr	14762	13730	10289	12286
si-dkey-34f16.5	415	547	363	465
rpp40l	614	694	461	527
tnnt2d	10144	9833	8429	9156
optn	3278	3005	2656	2500
rx1	6162	5296	3501	3740
fndc3ba	2763	2697	2383	2553
clu	8785	8532	6383	6623
rorca	11492	11637	9686	10884
gfod2	3354	3172	2520	2471
mafg1	334	428	262	271
decr2	1734	1780	1319	1556
gyg2	123	90	46	49
si-rp71-1g18.10	325	338	234	226
zgc-77052	13529	14832	11142	12118
cdnf	1597	1499	1195	1150
bms1l	8945	10131	7444	9172
ccnb1	397	465	478	345
zgc-101788	746	657	880	890
acox3	2516	2585	1988	2066
slc39a1	1133	1156	914	1002
eif4a1a	26449	29555	20266	19866
got2a	17188	18509	13894	15671
rps8b	1408	1506	1157	1113
pde6a	3432	3632	2637	2432
agl	21007	20904	16445	16763
tnfrsf9a	219	235	192	206
zgc-77817	2397	2645	1966	2120
zgc-172139	2170	2290	1605	1807
zgc-154006	643	634	460	493
klf13	4569	4099	2326	2443
pi15a	88	140	87	113
uts1	1393	1358	869	864
galns	1070	1207	965	1028
hdac9b	7568	8091	5794	6462
crh	1040	973	771	834
pcp4a	3823	3807	2905	2606
itih2	14019	13896	9493	10714
optc	51	16	31	10
zgc-114085	471	465	325	307
zgc-158846	36048	32341	24664	26371
hhatlb	4259	4665	3189	3298
fkbp11	3697	4102	3329	3519
nfk2	3796	3890	3408	3299
zgc-76871	5850	5820	4849	5367
nat10	7193	7301	5094	6037
snrpd1	2643	2771	2307	2089

ctgf	13527	13696	15095	18570
znf395b	22351	22466	19679	21420
agpat9l	2113	1872	1870	1825
sult6b1	15116	15105	11201	11781
ilvbl	4121	4265	3285	3125
ckmb	1648839	1704456	1225641	1287443
ext1c	10286	9506	7818	8546
pold1	2088	2396	1845	1766
pwp2h	3535	4079	2799	3312
abca4a	985	1010	804	918
il21r	112	118	124	144
slc4a2b	5346	5678	4416	4751
stat1b	96	95	86	85
zgc-77906	3238	2565	2819	3130
frem1a	3134	3341	2813	2963
mos	170	173	106	156
dgat2	10542	10282	7284	8103
zgc-136817	8879	9016	6743	7553
cyp2aa12	4358	4223	3109	3168
ckma	1930718	1955628	1423840	1510129
pglyrp2	292	361	287	265
cplx4a	7101	6925	5454	6465
slc5a2	1442	1288	1124	1254
figf	369	355	296	264
prmt6	454	489	359	343
slc16a9b	7612	8589	7184	6950
ip6k2	37899	32628	24254	24832
cldn1	9596	10541	9498	9175
mpdu1a	1106	988	889	792
skp2	179	189	180	129
tnfrsfa	2397	2265	1956	2126
bop1	7844	8325	5807	7156
khk	1427	1474	1337	1251
scpp5	1706	1620	1526	1559
ptger2b	163	200	156	143
hspa14	4787	5136	3360	4042
zgc-112176	14360	13936	12629	12370
acads	2979	3094	2509	2257
adh5	37203	35955	26748	29803
klf2b	3943	4498	7679	10378
esr2b	2328	2296	1477	1598
dyrk2	7628	8967	5654	6889
pfdn2	4427	4292	3266	3671
chchd4	575	638	391	427
atp1a1a.5	3408	3660	2642	2674
bactin1	194538	191297	153330	129854
rgs5b	523	647	565	392
zgc-64076	11036	10765	8009	9326
crb1	4234	4292	3111	3492
phospho1	333	602	355	247
fbl	10239	10813	7713	8650
ahcy	196037	196601	144992	155588

cdk8	1246	1289	839	932
si-dkey-42i9.5	1195	1393	971	1113
cyp4t8	4507	4424	2933	3521
pgrmc1	4038	3896	3138	3294
zgc-153593	1317	952	1125	1030
zgc-165507	5522	5291	4199	4271
zgc-153343	10	11	14	11
zgc-85963	41876	40596	31251	33982
arid3a	3605	3895	3355	3494
cmn	6752	6763	5635	5640
zgc-77739	2387	2083	1665	1670
zgc-154086	376	504	253	326
zgc-103688	809	815	591	609
klhl31	160812	155380	101744	124944
zgc-158450	38060	41634	28840	35570
zgc-85976	683	933	594	699
obfc2aa	908	1133	781	767
hspb11	3230	3571	2853	2973
sp3	1272	1412	1361	1421
zgc-162595	2141	2173	1349	1868
lepr	4072	4134	2604	3009
ccna2	624	683	607	433
zgc-110298	9621	9261	7955	8462
zgc-77556	1121	1050	828	833
dlgap5	964	1048	1007	911
ruvb1	2993	3203	2387	2600
zgc-85869	1025	1185	928	909
c6orf115	1037	1093	899	862
uckl1	843	952	710	756
zgc-55671	7806	7751	6310	6112
ugdh	2126	2162	1979	1929
si-dkey-170o10.3	535	530	379	476
zgc-113828	313	378	271	225
zgc-101768	2597	2924	1923	2286
f2r	216	279	219	233
zgc-153154	12562	11373	8030	9835
capns1a	11961	11766	9687	9510
adssl	5990	6407	4779	5192
zgc-174259	278	334	232	203
scn2b	5241	5887	3874	4080
cldn5a	2574	2313	2049	2248
cyp3c1l2	4091	3642	2272	2823
hspe1	4123	4312	3342	3314
zgc-86776	2290	2397	1734	1888
crabp1a	1953	1929	1602	1696
cx35	1481	1514	1294	1102
fabp11b	104	144	117	100
lect2l	1081	1178	1160	864
gys1	51735	54539	39181	43559
klf9	47654	45464	38439	40911
epas1b	7849	8576	5522	7080
ca7	317	243	188	199

zgc-171581	549	591	449	346
gpd1	18081	16400	13740	14051
mtus1a	2937	3110	2313	2662
si-dkey-184p18.2	820	708	615	450
ahr2	13240	12809	9273	12683
srrt	4470	4691	3432	4131
opr1	2647	2794	2018	2108
wnt2bb	293	289	290	235
ak4	6055	5932	4297	4864
faah2a	2109	2026	1684	1750
ncaph	491	475	415	309
vamp1	6933	6876	5238	4758
crif3	4986	4630	3830	4252
pcna	9433	10628	8356	7798
pdss1	2523	2928	2039	2013
ing5a	4161	4081	3175	3617
zgc-174904	3449	3890	2949	3791
zgc-63767	1178	1372	849	1168
msh2	2188	2419	1630	1590
fads2	5962	5383	3451	3692
zgc-195195	46	47	50	41
eya2	4465	4064	3216	3737
b3gnt7	1163	1264	1312	1176
abi1a	3669	3605	3020	3111
slc25a37	1030	1347	822	865
si-ch211-237l4.6	1537	1360	1046	1104
slc25a25b	635	630	429	303
zgc-110784	562	505	423	504
tuba8l	24792	27521	22197	20107
si-rp71-1g18.11	174	160	119	137
zgc-113625	19	10	27	35
heatr1	8397	8163	5297	7529
pdlim4	2412	2302	1797	2030
imp4	1383	1453	949	1108
irbp	88716	82874	59838	68980
smtnl	4308	3603	2772	3107
ncapg2	492	527	361	302
syn2a	12691	13178	10146	10716
nadl1.2	15291	15693	10698	11118
slc16a8	4520	4620	3408	3822
snrpe	1365	1401	1137	1124
creb3l3l	14670	13990	11254	11482
EIF4G2A	9093	10022	6581	6647
zgc-114164	2660	2613	1786	1760
zgc-153766	1132	990	834	846
nola1	5331	5912	4370	5036
vdra	4234	5735	3163	4040
fxyd6	3378	3485	2259	2584
crybb1l2	503485	486078	383714	457111
sncgb	32634	33579	22928	24485
rap2b	4770	5140	4113	4537
igfbp5a	13141	13214	9525	10829



abce1	27078	29837	19614	23725
rasl11b	2903	2652	2326	2414
grk7b	472	644	428	509
sfrp2	1827	1897	1532	1695
LOC567653	43	55	41	82
cry2b	6707	6103	3811	4592
fam102ba	2603	2797	2055	2184
pygb	6880	6787	5294	5785
thyn1	131	134	136	165
zgc-63792	72	50	69	80
zgc-56326	58605	47469	40091	49432
crygm2d6	16205	14602	9938	12024
zgc-109995	872	861	589	744
kcnn1	893	944	803	741
zgc-154001	8421	7817	6931	7469
prmt1	15044	17036	11108	11249
nol6	4352	4448	2899	3198
col11a2	14118	14815	15126	15159
zgc-163080	4204	3843	3263	3120
zgc-73359	38596	39373	31152	31704
zgc-92912	1817	1796	1173	1177
si-dkey-30j22.11	10955	11535	7529	7733
zgc-171553	3603	3283	2870	3314
ttc27	7596	8149	5861	7510
tomm40l	2529	2598	1902	2073
mcm3	1197	1390	1094	1018
si-dkey-236e20.2	648	495	352	372
zgc-112285	18193	16422	11578	13790
vim	51148	46705	36221	43782
slc6a11	341	349	263	264
zgc-152925	367	369	385	363
LOC100001681	2103	2218	1598	1543
zgc-92375	783	817	591	660
cpsf2	4403	4691	3605	3831
zgc-158781	345	302	342	402
cdk1	445	490	344	387
gad1b	40778	41869	29435	31786
thbs4b	28256	27377	20356	25538
abcd3a	12354	12680	8921	9510
zgc-85777	8269	7975	7117	6555
pdss2	499	616	479	515
zgc-64213	2212	2246	1823	2261
ptgs2b	780	1383	2908	3275
zgc-110020	604	712	544	613
gldc	26463	26384	19536	20062
clic5	2975	3051	2303	2462
zgc-91890	1421	1348	1156	1233
dut	1760	2040	1950	1427
zgc-101111	163	141	138	137
calb2a	10152	10368	7810	7626
homer1	1831	1836	1437	1591
ncaldb	7097	7886	5325	6391

krt15	135426	144824	119067	113078
sprn2	3139	2876	2309	2632
glcea	2614	2392	1723	1928
itgb1bp3	6893	8316	5301	4096
thrb	3636	3402	2235	2372
zgc-136890	3334	3057	2088	2768
sf3b4	3117	3275	2799	3015
prkri	1857	1969	1621	1688
ca15a	1078	1305	1072	1116
chad	3076	2779	2472	2477
si-ch211-132p20.4	24415	25007	18347	19451
pygmb	11102	11772	8339	8978
zgc-171470	62	84	57	56
prdm1a	2176	2138	1702	1886
prmt3	4317	4565	3252	3682
rcc2	5839	6074	4822	5657
zgc-136220	69684	67931	48013	56841
zgc-112265	16270	14243	9659	12033
prmt7	3037	3247	2523	2750
ptp4a3	12954	11780	8104	8264
f2	9215	9631	6892	7411
pdcd11	15237	15467	10423	13085
loxl3a	814	689	631	733
smc1a	3102	3276	2149	2508
crybb1	630282	653783	487723	601946
zgc-165344	362323	360847	283187	302798
ciapin1	3151	3271	2538	3045
zgc-153441	1199	1191	875	952
amdhd1	1151	1203	806	1071
col9a2	23060	22720	21650	21451
nox1	92	101	123	83
scn1bb	14395	14353	10278	10488
por	9361	9268	6304	6287
atp2b1b	4990	4731	3676	4421
nop58	11871	12512	9122	11024
im-7136220	287	333	285	342
foxc1a	2933	2728	2740	3433
rfesd	83	114	74	105
zgc-114181	5626	5797	4671	4806
LOC565335	1086	1299	740	832
smyhc3	1806	1749	1138	1404
wdr75	7818	8162	5125	6237
zgc-92804	11407	13694	9341	10462
rab3ab	5725	6761	4216	4418
ucp1	505312	484034	360732	446008
mettl2a	1006	1140	764	895
si-dkey-190l1.1	2976	3058	2123	2629
usp37	3665	4080	2890	3369
srd5a2a	3916	4038	3071	3159
tspan13a	1504	1531	1138	1532
atf4b1	59713	61942	52299	54482
mapre1	8384	9338	6515	6633

vac14	2574	2612	1899	2199
sepp1b	4166	4235	3107	3592
itgbl1	2542	2446	2257	1900
tgfb1a	1338	1323	1184	1378
zgc-92085	355	258	269	170
pdia2	8644	10087	8107	8601
zgc-153989	1089	1126	883	1108
egr2a	292	424	1357	2498
tnfrsf1a	1539	1720	1402	1634
zgc-136980	6720	6326	4522	4843
ampd1	333512	340853	228508	240069
LOC570267	2360	2699	1636	1854
zgc-92174	7180	7066	6358	6856
ca14	366	413	330	382
nup133	5249	5651	4117	4985
fth1b	4054	4089	3262	3275
zgc-136858	1721	1859	1414	1696
nhp2	2511	2765	1995	2295
sdf2l1	1730	1902	1359	1385
zgc-152958	7191	7140	5479	4911
LOC555748	23364	23929	16357	18463
wu-fb25h12	13009	12850	9302	10043
zgc-162816	678	681	555	585
gdpd1	2041	2542	1761	1623
zgc-112335	1029	1150	966	875
zgc-136333	434	411	271	341
EIF2C3	716	704	566	428
rtcd1	1946	1992	1559	1595
tagln	9283	8555	7836	8529
esd	3831	3555	2762	2809
b4galt1	737	841	734	540
grin1a	12033	12355	8643	9570
hfe2	7293	8447	6305	7122
gtpbbp10	2102	2107	1389	1604
zgc-110289	378	341	244	239
zgc-153034	1325	1471	1179	1403
zgc-92296	878	775	811	1086
znf367	447	608	503	558
zgc-123333	8824	8372	8411	8872
copb2	21181	21765	16279	16538
zgc-173915	247	313	244	224
cyp2aa3	148	186	133	112
gnl3	9166	10057	7361	8520
syt1b	206	166	146	170
acy3.2	1342	1355	1064	1218
nup98	20928	20949	14868	15705
plcd1b	4337	4028	3272	3533
coil	436	500	347	387
ctbp2l	6918	7765	6615	6391
rrm1	4130	4944	3986	3413
gdf6a	585	570	503	603
myo7aa	3429	3488	2477	2588

zgc-92429	6136	5935	4389	5506
xpo4	5497	5552	4000	4151
glud1b	102851	98981	79522	84204
aqp8b	14	24	13	18
her6	2579	2759	2295	2521
znf259	1911	1870	1385	1653
trim13	7314	7402	5908	6310
dhcr7	5953	6015	5048	5518
nle1	2974	3055	2286	2779
si-ch211-244h7.8	633	624	559	389
ing5	2692	2495	2023	2283
zgc-65857	6833	6783	6527	7335
zgc-103652	3440	3490	2566	2697
zgc-101710	1508	1712	1300	1248
top1l	3856	4232	3012	3020
anxa5b	7488	6444	6527	6738
sec61a2	3795	4098	2806	3440
zgc-136472	2190	2214	1595	1640
caprin1a	4249	4568	3596	3649
rag1	1044	886	770	784
fah	9913	10126	7026	8495
ppp1r3da	579	578	410	485
zgc-158626	353	499	315	390
slc27a4	3752	4053	2881	3323
slc17a9b	1169	1206	961	967
zgc-113363	801	1071	611	738
cndp2	6303	5976	4689	5016
zgc-91849	572	649	496	471
aldh2a	4330	3902	3284	3484
cog6	3952	4035	3019	3388
slc25a32a	9158	8419	6542	7702
ubb	19902	18091	13665	16041
sort1a	5195	5087	4153	4293
ruvb2	2338	2549	1880	1722
zgc-158852	3048	2789	2625	2559
def	2015	2021	1668	1862
defbl1	930	867	801	720
wisp3	354	398	405	395
ctps	4632	5314	3499	4150
hadh	7036	6493	4734	5753
calr	3292	3338	3363	3157
si-ch211-284o19.6	76	108	77	70
zgc-101525	4425	4229	2948	2691
ncapd2	1838	2027	1731	1399
serpini1	7288	7275	5129	5120
twistnb	2497	2551	2162	2676
dtwd1	2274	2589	1768	2299
fstb	3609	3496	3077	3815
zgc-173962	545	559	379	359
wdr18	1271	1446	1235	1205
zgc-112515	2334	2217	1543	1925
zgc-162909	359	393	411	384

raly	4253	4102	3135	3404
arf5	10673	10859	7853	8326
si-ch211-198n5.11	754	775	665	615
zgc-123339	5465	5571	4968	5562
angpt2	114	130	138	158
ephx2	6456	6299	4863	5235
si-busm1-266f07.1	65	73	87	66
zgc-123077	65	73	87	66
zgc-152682	65	73	87	66
zgc-171771	1661	1167	744	685
sybu	13749	13955	9337	10322
st3gal5l	2459	2350	2044	2476
adipor2	39593	36068	27092	30446
wsb1	43013	40891	30382	34699
rgr	12108	12623	8696	10441
zgc-66109	6720	6797	5186	5537
wdr1	31144	32774	26660	26617
entpd8	4933	4273	3449	3233
igf2bp1	9777	10835	8094	8707
or115-6	27	26	8	22
pkd2	2589	2882	2079	2496
ppm1g	5038	5426	4043	4767
ugt2a3	3094	3162	2180	2519
crabp2a	795	815	680	723
mcm7	29421	30374	28830	29082
ctsk	2115	2154	1995	2075
glra1	3548	3967	2413	2365
zgc-86715	103	96	88	99
cyp2aa1	1553	1631	1270	1355
cyb561d2	204	221	212	150
zgc-158363	11398	12337	10354	11417
cttnbp2nl	1980	2140	1733	2038
si-dkey-194e6.1	1311	1335	1002	1079
calb2b	11113	11839	8590	8913
sik2a	2182	2493	1506	1919
bin2b	349	327	273	298
grk1a	3675	4209	3160	2876
ccdc3	184	167	187	171
prrc1	2736	2822	2389	2567
fn1	8428	8684	7302	7680
bbox1	2336	2318	2163	1784
phlda2	971	1343	1667	2040
otx5	14587	15745	15034	18286
chrn5a	383	449	294	304
slc5a12	3760	3571	3275	3545
pfkfb4l	29198	31282	21930	22861
meox1	772	749	582	711
spns3	349	303	285	356
gpt2	1703	1993	1320	1502
isoc2	2660	2653	2023	2055
pole2	781	906	682	681
cyp17a1	673	711	428	465

f13a1	2433	2431	1918	2303
hm13	5522	5868	4350	4895
tmem30c	2710	2779	2073	2371
nfe2l3	1800	2041	1368	1555
aspm	1258	1490	1138	1128
s100a10a	22000	19759	14218	17501
rbmx2	467	428	505	535
zgc-64065	66	44	44	39
ctsl1a	52808	59419	46184	51796
qtrtd1	856	894	686	790
zgc-63947	2618	2775	2023	2288
unc119b	8935	9078	6653	7159
mtr	4039	4854	3365	4028
mir729	12	11	7	7
fkbp7	306	358	314	229
si-dkey-218l8.1	21648	21661	18761	19581
sostdc1a	828	883	677	833
cdk5r2a	16195	15900	11428	11588
zgc-113516	1777	1944	1274	1353
lect1	4703	4763	4893	5259
ca4b	501	481	397	456
ugt5a1	432	421	308	282
pard6gb	1421	1387	1239	1400
racgap1	565	602	476	428
rprml	1048	1018	791	738
lyz	3368	3698	2497	3254
sox4b	20871	19744	18054	15731
skiv2l2	5958	6354	4541	5443
elk3	1730	1601	1353	1532
foxo3b	59182	61192	42880	49731
plod2	2058	1973	1517	1636
cep55l	147	149	102	110
aspn	758	865	668	793
slc25a6	2928	3215	2124	2112
zgc-56136	3256	3574	2287	2628
rhoq	2586	2531	1878	1812
snrpd2	2685	2692	1954	2199
zgc-100997	122	144	153	159
LOC791982	1997	2050	1786	1941
inaa	3871	3918	2968	3227
apom	6920	6399	5162	5581
zgc-123285	2433	2375	2318	2319
camk2d1	4310	4197	3092	3150
zgc-73056	6632	6818	5408	5510
bcan	6281	6820	4619	4895
cldn15a	2765	2622	2375	2651
timmm50	2295	2467	1673	1714
trim3b	22986	22487	17271	18128
zgc-63882	1396	1340	1048	1185
ap1s3a	919	794	685	637
f3b	481	613	572	824
pcsk2	13169	13391	10249	9711

si-dkey-235k4.1	3292	3579	2333	2379
zgc-86811	1822	1850	1378	1653
dhdds	2345	2178	1687	1826
slc12a9	3446	3486	2570	3142
ppat	2015	2156	1730	1899
prph2a	16170	16178	11424	12900
zgc-110343	3623	3461	2704	3062
myl1	170107	177689	133626	142807
papss2a	12078	11615	8534	8878
zgc-158281	10540	9652	7079	7671
seta	12393	13144	9562	10570
cyp2aa3v1	117	153	111	89
zgc-194937	6383	6383	8345	7991
zgc-162651	2335	2375	1922	2315
pelo	1989	2021	1456	1654
galnt10	3528	3763	3355	3457
ormdl3	597	724	427	410
hax1	2401	2490	1625	1901
tagln2	6369	6286	5385	5764
ska3	131	126	121	90
zgc-55815	10318	9867	8659	9614
bsk146	1001	884	623	812
ctssb.1	799	772	749	660
alox12	2730	2386	2005	2466
nop16	1688	1804	1358	1667
zgc-175094	3107	3002	2146	2276
zgc-194314	94	105	66	80
foxq2	368	335	223	335
srm	1101	1437	862	1019
slc11a2	12044	13927	11167	12186
nono	8275	8516	6302	6998
wdr5	4645	4896	3599	3978
drg1	3678	4173	2701	3170
zgc-171978	330	334	277	343
nrn1lb	2251	2384	2043	2331
si-ch211-194e15.1	1575	1651	1098	1361
dgat1a	3537	3202	2447	2633
sdca4	10729	10388	8778	10008
zgc-109901	2616	2924	2097	2355
hcfc1a	15181	16371	13045	14401
npm1	20396	22157	15695	19312
zgc-153612	1447	1703	963	1121
nup155	15035	16097	11984	13712
cyb5b	988	1304	848	861
lmnb1	4765	5108	3952	4411
pawrl	1250	1120	1101	1313
fbp1b	30374	27403	20625	23019
scarb1	3819	3684	2583	2609
slc34a2aas	2525	2582	2195	2541
gapdh	554754	590318	420574	433993
tbl1x	1592	1680	1178	1175
dnrtip2	11520	12343	7794	9934

zgc-92061	119810	120364	102523	103752
crygm2d11	42172	40827	31772	34225
sulf1	3537	4165	3183	3896
xrn1	6795	7464	5033	5502
atp7a	4506	4843	3514	3665
acsm3	1370	1174	1125	1221
cyp2k22	15	11	2	4
zgc-112161	5606	5908	3963	4004
zgc-158374	15604	15446	13797	15157
cnn3a	7396	7225	6008	6107
wdr36	5340	5618	3966	4520
pdc4b	23688	23895	19926	21954
zgc-158291	4865	5022	4047	4185
rpap2	244	261	188	226
nhp2l1	4604	4887	3359	3891
zgc-171765	5401	5320	3653	3983
arhgap11a	271	302	247	203
ppp1r3ca	573	585	439	486
camk2a	6053	6497	4203	4209
agpat2	9779	9659	7302	8403
ctsil	144	124	91	146
actn3a	300061	297204	197491	226703
ms4a17a.4	105	95	109	105
vps72	2699	2576	2347	2527
zgc-165347	20063	18620	15715	15948
lrpap1	2059	2082	1709	1938
zgc-165571	7597	7281	5810	5391
zgc-110388	2803	3123	1884	2511
pllp	1207	1242	990	1238
mustn1	672	801	633	750
zgc-110586	9167	9172	6556	7381
acot11a	2247	2256	1751	1934
rasd1	5289	4785	4305	4301
slc25a32b	1089	1249	913	1070
slc7a2	4793	4834	3817	3735
c8a	2318	2099	1595	1803
ccdc43	1180	1303	916	1276
zgc-109987	3434	3721	2636	2928
mapkapk2b	179	191	168	189
tmed9	4171	4490	3308	3681
zgc-158773	216	217	228	247
tnni2a.2	2547	2595	1549	1726
tmem33	3560	3744	2722	3188
cyp8b2	113	130	83	86
slc25a4	195125	218119	159536	161100
EIF3JA	4507	4803	3304	4159
si-dkey-6n6.1	8863	8713	7759	7900
rcor2	1663	1711	1257	1295
abcg2d	717	640	410	595
elovl1a	1021	1113	900	655
fam46c	4876	5996	4055	3863
slc37a4b	5190	6356	4485	4179



zgc-92599	1176	1278	812	840
zgc-92578	43151	41647	31752	35022
cfhl2	273	298	236	206
zgc-194125	447	545	353	442
hdr	451	481	334	364
eftud2	6237	6422	4933	5145
prkacba	105	90	72	56
mat1a	16604	16763	12271	13061
pparab	951	1102	694	777
scg2b	41081	40032	29672	30738
serpine2	5081	4883	4598	4762
trmt6	928	1114	828	899
sncga	9567	8763	7971	8591
hnf4a	2075	1886	1437	1349
mtx1b	795	945	719	677
slc6a18	3262	2710	2589	2489
pepd	16939	16350	13153	14269
nipsnap1	348	378	314	303
sfrp1a	1555	1690	1422	1588
dcaf13	4715	5009	3395	3964
ttc36	2552	2670	2127	2327
smyd2b	3764	3813	3309	3412
zgc-152873	10661	12347	7902	9096
fgf1	433	431	288	229
slc27a2	26528	27227	19074	21273
fgb	14574	15728	11613	13288
slc1a6	3856	4063	2336	2123
cnih	3542	3832	2877	2932
cse1l	6531	6947	4510	4938
agtpbp1	4461	4649	3289	3776
bxdc2	6879	7006	5502	6232
itgb1b	4200	4285	3894	3824
ido1	940	1068	573	725
fxyd6l	6977	6909	4939	5151
mdh1a	163229	163456	113934	116305
zgc-136906	289	324	315	282
zgc-112315	532	600	487	460
zgc-194768	7045	7492	5513	6814
gtdc1	322	299	159	232
zgc-158619	3131	3471	2912	3223
LOC564964	1471	1432	1043	1027
LOC100003911	182	179	145	229
ugt5a4	82	119	70	71
ptpreb	4253	4007	2763	2906
oxsr1b	4117	4325	3101	3693
cryba2a	126823	125800	95857	111099
runx2b	267	231	226	321
zgc-64090	109	164	170	121
hsd17b3	106	109	67	69
dnase1	327	299	122	155
zgc-136908	22340	19554	14600	18030
zgc-110537	654	634	546	639

LOC792049	2164	2294	1843	1982
ugt5b1	369	403	303	342
zgc-153721	1430	1431	1166	1209
ldhd	1992	2086	1622	1654
tmem204	1837	2071	2093	2345
rabac1	3146	3517	2364	2479
pole	1114	1269	902	828
zgc-112231	80	56	60	80
srl	47234	47936	36230	38722
homez	2610	2676	2084	2248
isl2b	3768	3919	3198	3473
zgc-92127	2785	2853	2252	2768
crygm2d5	5240	4932	2728	3586
hsd3b7	4386	4187	3346	3282
si-ch211-203b8.5	16630	17459	12674	13961
nr4a1	10492	14695	14166	15760
st6gal1	2801	2905	1879	2053
zgc-113383	6237	6619	4821	5536
aldh2b	791	832	679	626
cyp2ad3	16709	15963	10980	13818
mym1	2326	2284	1724	1973
gfap	34505	31754	25431	27239
zgc-109934	1669	1296	740	1082
fhl2a	6771	6088	4792	5087
foxn4	2082	2036	1688	1819
pvalb8	34627	32907	21061	22483
orc3	438	545	430	477
prickle1a	4027	4222	2611	2917
rac3b	11394	11744	8827	8842
zgc-113314	170	181	150	158
snrpc	2421	2854	2356	2516
tank	391	274	311	319
top2a	1406	1634	1517	1207
si-ch211-214p16.2	417	439	325	324
zgc-64098	1332	1395	1140	1312
zgc-73225	3977	3822	2757	3143
zgc-113070	1088	985	804	999
zgc-153411	9613	9620	8703	9428
LOC791723	63	81	67	53
pck1	457507	398922	357587	360258
slc1a2b	145899	147827	114374	124818
mrpl38	4848	5123	3987	4431
zgc-153417	3224	3702	2700	3012
gpd2	1936	2100	1566	1897
si-ch211-69g19.2	1214	1242	1143	1052
rbb4l	4030	4101	3068	3090
sdr16c5b	6823	6963	5630	6355
zgc-101565	18266	20891	19639	12947
fli1a	4062	3785	3618	4217
mcm10	107	92	84	112
srgap2b	5410	5548	4264	4124
prkcbb	5883	6038	4149	4225

stab1l	3163	2825	2083	2481
tmbim1	2222	1868	1786	2138
igsf21b	6852	7337	4695	5221
mir29b-1	320	340	222	302
necab2	5145	5256	3551	3358
aldh18a1	2576	2782	1909	2155
zgc-171885	556	556	547	444
zgc-113199	63	62	70	51
bcat1	4852	4661	3029	3703
zgc-153061	9484	8627	6869	8427
gygl	35067	34258	23719	28003
zgc-112986	1824	1625	1048	1298
dvl2	2916	2878	2395	2875
cdk2	403	296	287	293
ntm	2207	2297	1539	1487
zgc-101859	13629	14529	10446	11510
rogdi	5599	5834	4349	4664
rdh12	4037	4462	2952	2699
psmd7	6654	6863	4565	5717
zbtb20	609	1080	402	686
pc	5905	5121	4558	4177
zgc-158410	6850	6628	4557	5278
slc37a4a	6098	5703	4432	4377
ddx19	2475	2838	2152	2371
zgc-171646	4899	5099	3778	4208
slc8a4a	7895	9414	6162	6269
hmgb2l	11342	11759	10221	10110
zgc-158429	1295	1510	987	1134
atp2b3b	24260	26196	17107	18431
zgc-103720	13505	11803	9934	12182
prim1	673	688	621	493
hbbe3	1	5	1	2
zgc-113276	1074	1098	835	890
zgc-171416	376	394	334	327
acat2	2391	2579	2030	1682
slc9a3r1	3484	3986	2801	3202
acmsd	1698	1637	1188	1280
lrrc8a	3493	3605	2505	3110
traf4a	5915	6513	5369	5897
zgc-165522	1026	1191	847	890
noc2l	9274	10105	6269	8530
zgc-110152	20677	18694	12669	14249
si-ch211-195b13.1	24777	25850	20983	22235
chrnb3b	436	464	332	333
scn4bb	1079	1348	931	1163
si-ch211-240l19.6	1128	1185	1137	1323
zgc-101853	25669	27377	19561	21093
zgc-73336	5762	6539	4541	4248
slc17a6b	9021	9249	6588	6777
matn3a	18882	17425	14616	15239
g3bp1	11108	12261	8712	9752
tspan12	2058	2177	1633	1760

sox6	7365	7939	5502	6497
sphkap	10219	10024	7641	8335
nup50	8101	8748	6752	7055
wdr92	406	504	366	404
stxbp5a	7372	7704	5201	5384
galnt14	3418	3462	2432	2937
cdkal1	3988	4647	3661	4185
pitpnb	1208	1279	795	916
hmgcrb	7790	7802	5970	5795
rfc4	1319	1441	1174	1007
LOC564395	3014	3008	3060	3254
cldn2	1630	1648	1434	1671
lap3	2372	2591	1927	2393
kng1	7503	7683	5468	6429
insl5a	406	397	365	362
antxr2a	557	502	369	521
ebna1bp2l	1979	2088	1584	1834
vgl12b	5378	5639	4931	5520
sepn1	852	846	584	575
camk1g	13007	14378	11450	12770
si-dkeyp-87e7.3	1337	1432	829	803
tfr1b	976	1071	830	768
fcf1	1549	1733	1147	1366
si-dkey-252h13.5	4393	4317	4061	4202
pbk	281	292	197	142
zgc-136406	640	662	414	602
wnt4a	420	410	429	382
zgc-153911	327	417	743	985
calm3a	14265	13978	10388	10315
zgc-171453	2232	2530	1702	1916
zgc-123335	4	14	17	12
zgc-91874	3107	3184	2385	2455
ttpa	1964	1912	1259	1534
gucy2f	1209	1153	860	793
sumo3b	2035	2091	1531	1582
tshb	253	207	304	329
zgc-65772	9381	9377	8669	9996
tmem88b	670	752	655	871
tufm	10462	11420	9058	9288
colec11	375	347	268	244
acbd3	1590	1803	1215	1493
heatr3	3937	4436	3039	3886
cx30.3	2840	2749	2150	2408
snrpb	16441	16307	15547	15001
ndor1	712	750	568	620
tyrp1b	48131	58644	53938	52078
ccne2	432	466	410	397
ankrd6	8361	8108	6608	7696
bmp1b	1885	1932	1414	1367
si-dkey-24h18.2	244	213	150	236
nab1a	1888	1760	1184	1110
slit1a	21359	22824	17073	18704

setb	14686	15824	10739	12184
zgc-100896	10145	9067	6271	7449
zgc-91930	224650	235995	183398	180376
nptna	7266	8025	5810	6121
zgc-101555	4237	4363	3117	3551
itprip	496	466	416	490
traf7	5258	5171	3616	3836
syt5b	18643	19211	13940	15389
hlx1	986	991	852	1378
tlcd2	4973	5086	3462	3781
gdap2	1688	1748	1346	1436
neur1b	1100	1058	949	1113
as3mt	1351	1407	1143	1001
nr1i2	4883	5221	2934	3267
ankrd16	1198	1382	1139	1116
zgc-136449	833	854	666	792
crygm2d12	68672	66523	50174	51982
gabra1	8885	9516	6203	6363
dvl3	2382	2318	2090	2189
rab1a	5984	6282	5440	6272
LOC564909	1173	1135	807	976
ube2d2	2801	3080	2478	2681
zgc-91818	2896	2677	2206	2309
LOC569000	25780	29038	23227	22604
phyhd1	6570	6251	4634	4550
zgc-172248	1521	1570	1015	1347
zgc-110307	4421	3843	3196	3785
vcl	10715	10916	8590	9469
crygm2d16	39753	38494	32404	31091
zgc-86841	2774	3276	2393	2609
snrpd3l	1468	1595	1347	1262
cyp2k16	1519	1213	1061	1298
rnasekb	1732	1706	1676	1441
zgc-194209	1335	1291	924	1182
arrdc2	46274	32671	26026	22762
surf6	1731	1836	1233	1559
lhfp13	9727	9401	6892	7317
zgc-158387	11415	10251	9044	8850
msxb	568	614	493	573
zgc-112001	4320	4288	3188	3352
zgc-77358	220	223	279	326
zbtb37	829	982	755	840
zgc-64116	221	177	191	242
slc32a1	22488	23562	17240	16695
dtl	160	221	149	191
snx19a	1288	1130	954	1025
trh	2250	2032	1716	1762
acot7	1166	1182	1009	1138
rgs7bpa	2084	2049	1470	1620
si-dkey-192p21.6	130	137	174	135
slc8a1b	7870	7991	5653	5182
ddx39b	20358	22301	15799	16122

nnr	0	0	0	0
anxa4	12023	12692	9740	10914
lrpprc	17295	19255	12958	14764
pvalb2	1811861	1761438	1080497	1184983
zgc-112104	5463	5902	3669	4289
ghitm	20051	20766	19775	21648
hnrnpa3	1701	1860	1472	1501
rs1	11494	12034	9213	10346
mtmr1b	1010	965	619	682
polr1c	1616	1593	1178	1178
stmn2a	14380	14812	9688	10179
zgc-85772	717	759	645	670
tob1b	74203	73526	61192	62973
zgc-92181	1839	1790	1428	1640
rbm25	7129	7488	5735	6829
rrs1	2183	2609	1935	2093
sypa	26838	26286	20765	21267
dclk1	8457	9447	6590	6749
zgc-165649	239	290	246	243
si-dkeyp-73d8.9	349	231	188	253
zgc-123180	2677	2722	2368	2759
rbm28	6134	5942	4574	5764
ncaph2	405	426	281	255
pcdh18a	5375	5141	4484	4688
irf8	347	341	282	411
rab3c	2405	2487	1888	1830
cd40	419	398	328	376
dao.3	102	116	75	61
capn1a	5758	5444	3923	4268
gsnb	2427	2161	1733	1640
zgc-173506	4141	4478	3118	3301
tlr5b	583	677	406	505
zgc-85944	1473	1799	1557	1481
tef	40259	38495	26652	30734
tubb5	14413	16045	14497	13078
timm10	1207	1411	957	1040
slc20a1b	44357	51441	38372	38935
lnx1	21325	20637	16468	17829
cep97	4172	4226	3678	4037
zgc-158296	587	624	563	417
dkfzp564o0523	2016	1791	1395	1665
mfsd4a	646	595	562	685
esrra	5842	5618	4009	3581
syncrip	34487	36598	30046	34213
fbx114b	4080	4627	3614	3951
ms4a17a.9	1154	1288	1006	1491
arpc5a	2000	1856	1512	1544
camk2d2	14556	15371	10400	10821
zgc-158263	2435	2149	1716	2061
psmc3	11507	12116	8340	9696
pcbp3	6152	7266	4312	5217
cradd	176	193	187	235

sf3b3	1170	1199	843	912
api5	6573	6614	4859	5542
fhl	1144	1021	982	980
fga	20019	20877	14580	16342
hkdc1	1123	1039	904	1080
mirlet7i	34	32	28	16
mylz3	1098656	1138736	826060	783996
chka	18217	17051	11718	13990
zgc-64031	1815	1866	1687	1900
gtf3aa	2369	2390	1553	1680
tcea3	4032	3902	3111	3423
zgc-153240	4588	4596	3787	3780
zgc-103639	69191	68855	50549	51350
LOC790901	333	230	246	273
nrn1	2197	2236	1770	1653
zgc-172295	2042	2041	1559	1814
rasgrf2	2598	3214	1683	1895
chchd10	4857	5337	4684	4821
snrpfl	826	981	805	741
cntn1b	6539	7225	5463	5107
zgc-136569	19398	21420	14788	17425
eef2a.1	1239	1280	953	1266
thbs3b	2912	2627	2235	2759
zfp36l1b	19836	19592	15719	19498
gmppb	6079	6122	4416	4806
ctdspla	13120	11620	9814	10429
LOC100003896	0	0	1	3
prlra	3887	3742	2899	3305
LOC568697	1330	1341	911	1151
ptpn4b	8223	9167	6600	7052
snrpa1	1796	2040	1623	1728
zgc-153921	69	77	31	37
b3galt2	11639	11974	8575	9518
snupn	1858	1859	1404	1485
jhdm1db	3253	3295	2296	2395
rltgr	1598	1779	1120	1349
gria4b	13343	13795	9576	9804
nek8	319	328	263	296
polr3e	12888	13375	9181	11022
pcbd1	2149	2276	1665	1669
ampd3	12868	10714	8224	9428
disp2	4693	5036	3461	3506
tuba1l	23489	26110	20344	19638
LOC100007315	2428	2218	1798	1897
slc33a1	1175	1021	887	949
pola2	637	788	518	472
clk4b	3469	3405	2251	2995
si-ch211-14a17.13	6	0	0	7
zgc-158791	3692	4301	3011	3408
osbpl7	13445	13566	9973	11502
boka	1724	1508	1225	1432
zgc-158350	9073	9391	8159	8183

grna	1104	1193	1064	1046
umps	1101	1334	916	1028
dnaja3b	636	617	405	447
itga5	1742	1741	1460	1513
sqstm1	17794	14674	12274	13491
mybbp1a	13105	13514	9752	13382
slc22a7a	1871	2065	2125	1671
egfl7	683	731	675	785
atp2b2	22800	24869	17506	18332
EIF4E	1217	1224	966	1104
enpp5	4028	3950	2550	2554
gosr1	1918	2014	1537	1681
kctd15b	1488	1416	1116	1238
foxi3b	1382	1359	1155	1331
pak7	14753	14715	12242	14112
pcdh15a	4161	4420	3262	3264
atp6v1b2	12976	12226	8370	8594
kbtbd12	12011	11453	8479	9113
herpud1	6406	6339	4992	6008
zgc-153368	2062	2146	1600	1946
sly1	5154	5214	3617	4110
tia1l	8827	9481	6695	7553
abcb9	1912	2000	1333	1423
scn8ab	8568	9554	5776	5914
si-ch211-137i24.5	1111	1072	900	831
tomm20a	3868	4737	3164	3971
zgc-101723	9139	9497	7558	7846
vcp	35776	38346	24820	28729
drd3	1276	1202	1026	1107
fxn	546	669	412	553
itgb3b	499	422	409	466
tnpo2	18214	18289	12541	14808
zgc-153423	3581	3541	2433	2648
exosc9	847	982	687	625
zgc-92066	26576	26937	18352	22355
grpel1	2550	2693	1792	2074
lmnb2	9214	9564	8273	8429
lias	1828	1795	1399	1606
LOC796505	4658	4601	3592	4283
fen1	841	1042	726	615
il4r	211	236	208	203
nudt1	233	229	229	226
slc22a18	3402	3281	2828	2934
zgc-112368	1321	1234	1133	1433
gad2	34662	37038	25700	28721
sncb	17546	17852	14557	17335
acad8	3908	3821	2860	3261
dye	8230	8439	6349	6964
jag1b	3692	3742	2929	3024
zgc-92749	508	510	405	479
hnrnpu	14894	15855	12058	12780
EIF2B1	322	376	227	303



ddx49	1963	1910	1369	1644
slc2a5	40	46	71	64
zgc-65780	2692	2893	2786	2952
chga	5471	5099	3791	3774
samd7	1760	2187	2018	2072
zgc-174637	345	336	237	216
arfgap2	13257	13460	9212	10155
ccdc85a1	2696	2573	2001	2343
cacna1sa	4827	4849	3254	3513
zgc-153968	7409	6627	5830	5765
ablim1b	4741	5555	3634	4068
si-ch211-234f14.1	607	599	488	567
sept8b	1887	1659	1357	1635
zgc-123284	592	705	514	480
zgc-110801	7056	7714	5940	6561
LOC797799	110	113	64	83
abcf2	7103	8676	6129	5788
cki	119564	114102	86093	90772
minal	8588	10125	8231	10842
pnp4a	1481	1694	1453	1402
si-dkey-208k22.3	1807	1667	1409	1589
EIF3JB	4412	4797	3162	3545
nrxn1b	4029	4259	2999	3453
ms4a17a.5	142	121	122	155
ddx18	9316	8929	6728	7821
fam69c	1251	1285	1010	1261
rab3da	526	458	399	413
si-dkey-7o6.3	315	277	229	180
zgc-123068	517	570	425	444
phlda3	612	645	464	503
cnksr1	3140	3026	2180	2438
casq2	4452	4539	2724	2831
scpp8	32	47	52	61
si-ch211-244b2.3	423	415	352	350
si-ch211-121a2.2	4482	2477	1627	2017
zgc-114045	2668	2460	2110	1966
LOC100005578	0	0	2	2
zgc-162212	678	700	583	591
trmt2a	1065	1195	882	1059
xpo6	12594	12205	8839	9028
ednra	1392	1548	1162	1380
tk1	591	704	673	519
tuba2	29712	31511	23461	22494
or115-15	41	43	29	49
zgc-55418	8688	8393	6201	7002
zgc-103599	51	77	40	41
zgc-101594	1240	1326	899	1117
sesn3	5271	5012	4108	4192
yaf2	1692	1710	1231	1443
cdh5	2039	1997	1348	1873
masp2	1102	1220	870	934
ehhadh	2068	2165	1496	1328

cfhl1	150	173	121	141
aatf	2742	2687	1833	2362
chtf18	466	426	375	499
sh3bp5	3695	3825	3125	3094
cplx2	1904	2203	1387	1383
zgc-153426	2054	2471	1905	1770
hnrnpa0	33327	35871	31873	33352
zgc-101814	499	620	434	466
twist1a	1426	1547	1608	1935
zgc-101663	2034	2074	1374	1793
myst2	4092	4269	3161	3595
lamb1a	9307	8808	7986	9154
maf	3097	3231	2478	2329
zgc-110655	21069	22726	18755	21860
nova1	10111	10990	8313	9360
zgc-55558	3643	3952	2748	2865
rcn3	299	288	221	278
bgn	521	463	475	597
mgat4b	6517	5988	4461	4626
nos2a	72	36	25	23
and4	1932	1844	2060	1816
ctnna	10209	10303	8486	8543
zgc-101668	1434	1493	1399	1078
zgc-77767	3737	3905	3155	3099
or109-11	34	36	35	28
rhag	23188	22874	17482	19724
lgi3	1545	1639	1008	888
utp6	3939	3788	2439	3242
tuba8l2	97705	94434	68679	80924
abca5	5631	6087	4111	4512
LOC555288	1069	1323	899	994
pdgfra	2564	2567	2038	2263
lrit3	83	43	34	60
pmelb	4309	4506	3894	3838
acp1	2234	2331	1850	2086
zgc-110417	107	169	156	112
sgcg	800	948	684	705
zgc-110717	1159	1132	816	823
si-dkeyp-35b8.5	1477	1717	1297	1158
si-ch73-52e5.2	244	221	191	228
per2	80316	92143	62611	66217
camk4	3736	3657	2814	3025
EIF4BB	20994	21988	15913	18382
zgc-65894	27031	28724	22107	20898
srp14	1638	1569	1302	1405
tmem38a	58538	58594	42979	45340
zgc-153723	62	77	140	62
esco2	504	545	445	360
lancl1	5798	5414	3790	4045
zgc-165508	1365	1489	804	898
plk1	914	1150	835	724
alcamb	5022	4981	4123	4700

miox	3530	3776	3068	3305
prph2l	672	750	550	590
kcnip3l	1506	1528	1255	1112
ttk	896	893	724	600
zgc-153296	3142	3358	2822	2480
sgk2a	1502	1392	1408	1395
tmie	887	796	532	469
gem	2260	2005	1663	1720
ets2	16651	17815	17273	17301
csf3	106	109	102	169
zgc-113263	1073	1049	731	706
rrp15	2583	2562	2167	2518
mad1l1	817	937	664	788
ube2g2	1861	1860	1377	1378
plrg1	3813	3892	2906	3273
kntc2l	527	565	523	436
nxxl1	415	421	380	332
synm	10761	9578	7198	7949
zgc-153157	916	817	813	715
lama1	2977	3838	2040	2960
htra1b	3845	3662	2651	3367
rca3	7071	6788	4738	4808
hhatla	31550	30239	23081	24814
canx	28140	28576	23182	24451
acbd7	1496	1503	1365	1448
LOC795788	2830	2616	2216	2710
tbx24	507	724	412	601
lima1	2616	2878	2224	2525
smad9	6115	5916	4682	5275
capn2b	2851	2400	2204	2344
crif1a	1416	1365	1250	1380
emilin1a	841	829	673	763
cnot6l	10823	11372	8148	9408
ccl-c11b	942	869	720	764
oxnad1	1170	1369	956	1168
ets1a	805	858	682	825
LOC100003253	43	63	31	62
wu-fd55e03	4370	4518	3287	3482
nlg2b	5945	6101	4555	4779
ms4a17a.7	511	543	460	485
prg4	3006	2833	2129	2534
ctn2b	33712	35137	30239	32254
inpp1b	1813	1637	1290	1403
zgc-136759	7105	6570	4846	5067
hadhb	10882	11297	8953	8665
fggy	6215	6848	6358	6708
igf2r	8951	10255	6159	7861
supt3h	2464	2769	2040	2379
rab34	542	541	405	393
bmp5	811	838	685	757
msxe	214	283	292	312
insm1a	3775	4069	3547	3217

kctd7	3152	2997	2342	2541
prp19	8805	9346	7067	7496
serpind1	3233	3286	2187	2545
dtnb	4694	5537	3240	3519
ostc	1769	1850	1453	1531
zgc-136538	5	13	9	12
rasgrp3	1644	1879	1212	1235
zwi	3405	3314	2526	2788
parvb	3924	3960	3163	3316
ugt2b3	333	357	301	246
arf6	2590	2900	2330	2369
LOC570314	3004	2991	2357	2132
cdk11b	4806	5061	3710	4095
nom1	1051	1086	682	766
smarcd1	7817	8291	7047	7409
poc1a	142	169	146	111
adi1	3274	3213	2548	2816
atp1a1b	42409	42137	31039	34168
wdhd1	927	829	696	585
runx1	410	383	460	435
dram1	192	177	158	186
ufsp2	3570	3482	2555	3087
LOC798290	71	47	63	67
cdk15	1767	1862	1154	1475
pskh1	638	623	466	609
usp49	2754	3222	2496	2692
utp15	5566	5546	4004	4843
pou3f2	8861	8829	7045	7244
magoh	1562	1717	1269	1412
rer1	2292	2060	1680	1664
zgc-55813	53240	48939	38723	36938
rnasel3	560	604	477	375
zgc-64177	1235	1153	1170	1294
ethe1	3841	3666	3882	3420
grid2	6553	6859	4706	4534
snai1b	90	114	128	96
tes	1592	1646	1312	1291
LOC565256	3274	3824	2416	2838
si-ch211-153j24.4	25	46	30	33
zgc-162148	15342	15197	12014	13393
zgc-64119	654	592	455	635
zgc-154071	1626	1683	1335	1441
si-dkey-228a15.3	643	741	549	572
zgc-163064	620	593	577	562
anpep	7193	6608	4584	5408
tprb	9491	10647	8459	8682
zgc-109868	159648	150498	112695	119921
cog2	2862	2901	2179	2282
cryz	1532	1711	1293	1452
zgc-100817	435	531	380	387
zgc-91897	3988	4199	2930	3547
zgc-113342	246	256	196	242

hars2	1745	1824	1272	1265
gpd1a	5411	5346	4061	4026
pls1	2704	2463	1817	1973
esf1	6932	6789	4915	6138
mboat4	130	133	128	93
zgc-163083	473	451	340	406
myf5	390	441	280	409
ch25hl2	382	376	328	445
abcg1	11164	10596	6594	7834
cacna2d1a	7144	7284	5246	5687
LOC565106	2412	2438	1684	1507
zgc-153310	1957	1584	1463	1599
zgc-56066	1423	1809	1246	1456
zgc-64040	1056	1076	745	887
mapkapk2a	5170	5375	3757	3800
zgc-171501	244	320	205	240
phb2	9437	10260	7109	7790
carm1	7102	7608	5587	6366
negr1	8824	9424	6514	6870
zgc-194659	3617	2967	2546	3171
kcnip1b	3004	3023	2290	2267
EIF2B3	3406	3560	2623	2759
si-dkey-204l11.1	38	41	31	44
pnp6	1976	1896	1579	1651
selj	6142	4854	3835	4931
zgc-123190	203	314	222	147
nudc	1554	1601	1132	1225
zgc-153018	4709	4975	3796	4189
tmed1a	470	472	398	406
plekhg7	1950	1809	1335	1358
atg4b	1876	2045	1585	1637
prdx2	52852	53359	38522	38910
pmpcb	9802	10521	7163	8700
pfkfb1	2383	2658	1846	1956
p2rx7	1347	1237	869	875
pfn2l	15032	16836	11891	13267
pcmt2	3591	3240	2711	2723
pcmt	9661	9498	7457	7977
c20orf24	4807	5003	3720	4246
prpf40a	7620	7755	5888	6883
cplx2l	13542	13602	10079	9712
slc6a19a	14170	12561	9977	9643
zgc-123047	3235	3288	2830	2678
riok2	5151	5146	3916	4242
zgc-162964	383	384	326	486
vps13a	28807	29919	21450	23209
zgc-101847	17955	19418	12877	14520
pkp3	28630	27594	23262	20399
dnajc15	1373	1524	1016	1122
cdc25	1144	1185	980	1046
atp1b1b	21407	20030	14466	14297
zgc-91887	1622	1528	1127	1151

zgc-172096	1804	1960	1089	1108
dsccl	242	233	170	162
zgc-153172	2542	2523	2027	2213
tnfaip6	426	414	370	495
mfge8a	9883	9881	8086	8200
exosc8	1362	1488	1183	1397
snai3	327	315	191	198
kaza	2909	2874	2108	2305
cbln1	3458	3582	2535	2763
cacnb4a	1499	1835	961	1120
zgc-153675	860	791	950	983
acta1a	36266	35115	28538	25395
LOC555453	15	26	19	18
zgc-154089	2725	2678	2088	2112
scel	11689	11566	8928	8757
zgc-86723	43978	41908	32357	34007
zgc-85932	8130	7822	6632	7557
sypl2b	774	859	741	771
nsun2	3142	3291	2092	2505
zgc-171663	636	823	706	684
mpp2b	7208	7183	5252	5595
pcsk1	13546	14889	9469	10128
dpp6	9085	9164	6749	7241
sh3bp4a	2267	2370	1948	2107
pomca	1304	930	1014	1006
si-dkey-222b8.1	3059	3743	2154	2651
ier5l	8531	8428	6869	7648
si-ch211-206k20.6	2261	2207	1554	1865
ypel3	3954	3416	2539	2862
sgk2b	2634	3348	2640	1824
ddx1	3516	3662	2659	2897
zgc-66127	19092	18966	16838	16105
rpf1	1485	1458	1005	1054
si-ch211-15d5.2	570	545	450	475
tmem178	4424	4650	3426	3524
cyp46a1	127	175	97	93
tmem22	8541	8330	6279	6356
samm50	3132	3488	2450	2539
slc13a3	1776	1458	1212	1259
zgc-86725	34593	38023	26417	26984
arid3b	8469	8514	7378	8121
txlnbb	47708	45317	31693	39593
aebp2	3923	4191	3193	3194
rb1	1597	1679	1119	1241
ano2	1018	1022	654	701
cx32.2	97	109	91	80
slc2a15a	410	406	376	418
zgc-163030	900	929	812	821
zgc-112242	1299	1479	970	1262
slc34a2b	6526	5052	4483	5147
kbtbd10b	49803	48557	34078	39001
drd4-rs	751	812	600	612

si-dkey-10o6.2	472	574	419	477
capn2a	1976	1920	1614	1733
col9a1	14967	15008	14207	14783
fmo5	2934	2964	2421	2768
rpa2	1812	1852	1548	1365
si-ch211-244o22.2	560	649	478	470
zgc-153041	872	1037	858	724
trap1	1471	1572	1171	1436
atp1a3a	114243	122733	88052	93236
tmem48	3727	4037	2670	3109
kcne4	90	78	110	151
loxl5b	110	99	156	125
cntn1a	8237	7951	6300	7393
rab32a	633	603	462	553
c1qtnf5	635	623	532	577
nudt5	1687	1827	1414	1629

Ethanol-5	VD-1	VD-2	VD-3	VD-4	
436		694	11654	13963	13018
208		318	3771	4302	6108
70		127	3041	3753	4656
1514		10718	49454	37244	31538
2452		124	540	243	332
597		1939	14523	13502	15900
9		34	429	1818	1167
2343		1059	339	317	273
13292		3275	7033	3511	2547
5684		622	2617	1591	1305
14654		81693	352385	277029	228432
51670		18420	18165	15419	7686
3751		6553	5062	9359	13777
106		409	288	552	927
184		212	1013	1782	1691
37883		11236	10485	8714	6720
364		782	4552	4775	5951
2443		539	1636	959	678
349403		129534	63906	59539	51724
2329		432	728	685	726
3165		4954	23545	32616	35523
1960		2743	13670	15608	20028
880		1296	4930	8166	8376
681		153	391	162	168
133696		19685	71558	38537	48658
301		598	3811	5234	5186
43459		8731	22628	15940	14260
71834		29501	56975	28113	22163
79003		15089	37862	26310	24029
1922		381	795	642	537
580		794	3375	9236	4619
792		48	276	129	142
3904		643	2897	2402	1536
121936		21273	69303	44904	46685
1708		477	796	621	627
6928		1718	1128	1323	937
33		57	516	909	792
901		143	65	75	33
2734		3732	17803	25077	22662
37428		7822	24231	17232	17607
80780		37692	14279	13427	13379
347		509	3598	4314	4612
721		1772	1935	3272	2893
106		212	1528	1919	2057
13771		5427	13982	7564	6957
6855		3236	4174	3099	2034
12205		6805	4711	3018	2077
356		120	76	25	16
7330		2093	4956	4102	3026
243		28	110	132	91
890		2547	9578	7719	6627



47842	11416	20340	16138	13994
2754	4760	14839	15732	15420
13098	9417	10421	5295	3423
691	1242	6056	6156	6264
19	21	502	572	584
4747	1256	2588	2018	1470
30044	7005	11505	8432	6831
435	139	32	26	13
104541	49352	24117	22776	21745
2848	4199	15622	18023	17180
405	559	4337	4271	4397
12722	7397	12455	6137	5023
1576	2905	7055	9582	6823
6579	912	8000	3854	3757
657	51	382	232	291
4165	1109	1874	1539	1177
14944	107460	196335	142072	140608
1165	1520	6817	7183	6166
3421	987	1280	1101	895
1590	258	584	483	455
5886	1556	2157	1936	1540
616	42	112	115	111
151	181	3009	2553	1795
784	1235	693	995	1416
490	1009	2329	2749	2840
129	426	487	1708	829
387	139	33	25	12
3356	1011	1295	1140	896
3621	1036	1373	1235	981
2505	2213	1079	549	390
1009	2802	17114	13593	11219
3291	987	1258	1095	881
119	91	991	728	1559
3266	1151	1131	923	927
3893	1127	1479	1276	999
669	1499	4359	3954	3387
732	1527	5485	4712	3788
15105	4440	7271	6381	4789
2655	731	1927	1263	1014
257	168	246	260	307
813	229	253	232	240
246	167	250	257	309
168003	39272	167469	104777	120536
648	702	4998	5136	5416
571	3040	11706	13995	6819
550	147	331	224	121
1518	1985	10048	12196	10018
17304	19726	45210	58767	53447
2264	2327	3258	1118	717
9322	8898	9476	4453	3270
1982	1252	10774	10429	9639
112977	26701	116905	73161	67991

76	92	641	861	856
13122	16105	12048	3936	3169
6906	5835	10010	4896	3566
1326	975	7176	6976	6486
2398	1624	3100	2348	1747
181	268	1018	1394	1529
8470	10174	31939	38936	40396
725	413	1381	3202	1883
109052	77500	186050	169145	81071
518	129	281	194	198
4439	2167	3407	2684	2132
5380	1623	4188	3096	2316
3667	6582	23134	24860	24349
253	486	1583	1570	1679
27573	28085	21207	7947	6468
330	452	2532	2816	2850
197	217	751	2445	1288
3608	6162	26525	31232	28006
250	906	1566	1683	1604
3476	3768	14772	16287	15624
78001	28124	55170	48198	35876
10162	2322	9091	6242	6341
2	82	356	441	259
15110	9087	21102	12991	9626
653	1380	4349	4803	2989
3577	2405	9678	6138	3561
4177	1459	1371	1872	1345
143	190	883	1181	1320
6576	1529	6649	4755	3631
3087	975	3989	3424	2392
1	13	250	242	157
1279	418	611	616	358
575	204	263	208	152
3012	3148	7445	8627	7854
61288	16542	14328	20739	14073
15712	15724	28270	25357	31948
764	28	1298	750	436
22	189	457	551	361
2348	1080	968	904	891
13307	6964	14440	10594	7790
1642	1107	2250	1166	971
1334	1632	8251	7821	7154
27668	22758	36820	20243	13466
28	98	550	511	407
1287	2632	9666	10328	8719
849	288	640	404	287
763442	489474	1088990	799731	556169
6525	3186	5174	3561	2730
5598	6096	14005	17566	14541
2502	1568	3526	3115	1966
731	296	480	482	418
80428	22858	84193	55431	62698

3263	1421	2320	2343	2245
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8376	3786	9074	7489	6843
5840	3528	8346	6020	5003
758	687	924	479	400
1266	360	769	670	527
73812	38589	78446	58444	41363
635	53	523	385	415
1820	495	1846	1415	1333
5652	7918	26489	38082	32402
5689	1673	4451	3542	2610
1639	3359	17981	14150	10483
889	1081	3678	5167	3353
3170	1544	2622	2079	1820
4445	935	2204	2254	2496
3277	4682	16953	19850	17077
502	92	393	386	322
3339	3335	4048	1952	1509
25005	16142	27298	17402	10410
1876	4700	13665	9659	8424
4713	6001	22397	23112	21547
363	153	402	300	192
503	864	1977	1962	1902
642	171	446	300	354
10910	10845	7168	7134	9123
31981	12492	16743	14096	11126
665	1169	3559	4097	3399
21912	19163	32350	19126	13888
384	58	246	300	243
1576	1007	1764	999	668
194	149	251	119	86
10659	2634	17027	10974	11430
713	1358	3598	4106	3252
2004	2872	9748	9586	9264
894	539	1539	900	749
2677	6826	44005	36194	28168
727	10321	2194	1322	2151
2717	840	2066	2038	1525
501	979	5656	6161	5842
800	1712	3848	3509	3267
13089	13389	19352	10719	9220
2700	3231	3402	4101	5473
2612	668	1623	1257	1010
2066	1617	3343	9461	2988
36933	40199	62609	37976	25092
70274	48105	66130	46545	36965
48470	19536	48401	34651	24842
1018	322	1049	818	512
10489	12063	27547	32682	34311
14686	8532	9240	10835	6005
14126	9168	19524	12971	10750
4670	1608	5865	4209	2858

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2219	1854	3457	1866	1456
7550	4504	6463	5094	4535
4056	3564	4395	3258	2812
68196	16399	70789	46208	49521
426692	151597	612013	425190	436494
2868	1129	1545	1213	1047
2743	999	2786	1979	1539
2131	2094	4180	4946	4004
430	430	710	310	211
1201	804	1963	1084	847
38	47	587	367	349
297	343	217	100	47
14908	4398	21160	13882	14078
318806	104682	442192	282138	308279
3171	5936	18289	16729	13200
1925	1318	2327	1832	1409
206	378	1345	1485	1164
1120	275	665	544	452
1154	489	854	770	720
3512	2051	2841	2155	1360
3626	1684	3436	3174	2089
3479	1264	3868	2888	2159
383	404	267	117	81
4869	1208	2708	1965	1554
2220	431	1763	1375	983
37380	23708	62961	44574	28096
757	142	630	439	306
567	146	463	226	243
104	275	719	750	758
49429	32806	79430	56035	37241
2177	1900	4126	2174	1352
265	474	2047	1854	1495
795	187	416	338	256
4050	7819	19218	16607	14509
1103	626	1127	842	763
410	1091	3626	2883	2200
9793	3518	12054	9087	7012
81930	40011	75121	54377	30286
17154	8812	27643	22683	18443
7977	6718	11600	8471	9325
915	1254	4896	5432	4101
542	739	758	339	196
150427	87259	341853	279504	195252
4580	2914	6614	5586	3988
521	320	709	845	641
3172	1340	2483	2194	1934
2216	4184	16123	12069	10787
6958	4634	13731	8133	5944
927	579	1189	838	534
1093	537	947	821	530
415067	158358	532426	356418	390372

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1660	1583	7316	7689	6435
3933	1920	4681	3542	2995
5579	1898	3302	2459	2728
1346	920	1129	730	634
2963	2879	2968	2229	1627
6319	3103	5805	4866	3453
519	1085	3016	3298	3644
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8026	4185	7194	5328	3947
2431	5389	19404	24624	17581
6110	2647	7997	6009	4821
17138	21588	88037	90133	80652
2532	2776	5398	2932	2368
1670	1718	4425	2746	2068
1763	937	2726	1958	1482
358	113	586	389	289
4564	8247	24450	20431	17662
7240	3622	6626	5646	3977
3576	1794	2133	1425	1192
1297	497	1228	895	828
13083	5315	10883	9407	8817
1243	288	1238	954	922
56	90	255	143	124
39	2	185	192	271
2348	5256	18745	23920	16984
1868	1591	2280	1980	1447
464	960	2160	2009	1632
166970	66810	285754	233580	129921
20378	18953	62108	67551	72208
2693	3922	14314	14605	9592
3134	3871	12477	12048	11074
1796	634	1680	1331	899
879	1099	1558	1698	1714
2090	1108	2632	2013	1607
423	627	2043	2322	1850
20969	14320	44081	37445	25515
66	93	59	73	216
4533	2457	4924	3903	3072
56955	19239	89217	57253	55417
542	358	397	513	243
3993	1604	3279	2633	2224
12070	6678	10768	8177	6420
3217	3569	12270	15206	15212
22734	17971	29312	18920	13214
1858	4558	7022	5249	5009
2727	1138	2946	2364	1948
102	146	447	761	441
151	103	546	854	918
1650	511	1473	1234	1035
2891	1487	2743	2296	2008

8197	13856	49754	47804	37850
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21449	12023	14631	10598	8529
4155	2444	5415	4039	3283
2817	667	3401	2563	2005
1751	569	1738	1246	1052
2290	1472	4834	3049	2102
101	169	788	835	528
518	351	703	540	360
314	540	1409	1394	1540
677	202	561	449	373
1083	1455	4780	4568	4479
14526	18484	69723	69433	56942
352	424	1393	1543	1758
732	2996	13951	11354	8859
2788	1721	3831	2888	2452
11473	15100	56904	58585	54893
6760	6523	9146	5773	4113
1789	1655	3360	2396	1855
9821	4058	28249	19318	14409
277	64	147	117	79
3561	5214	12614	11460	9859
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154	111	343	145	103
1816	1362	6069	4607	2975
3653	3306	4471	2464	2123
3720	1624	5384	4249	3580
2438	3690	10539	9097	7624
9457	4916	8999	6444	5376
7353	5951	17407	11755	8130
7204	2857	5600	4846	3912
1900	1866	3590	2313	1385
4644	3782	3010	3257	4461
1346	1929	5226	5158	4763
3246	3462	10431	6921	4974
429	577	2205	2404	2135
1845	1954	3164	1810	987
63363	35329	84825	68421	48732
506	175	336	279	282
7881	3053	12806	9798	7204
2365	2566	7371	4910	3469
423	216	348	342	204
228	90	249	101	87
31686	30373	46566	33773	49654
12299	4470	13798	10166	7396
3100	2808	4446	5646	4804
823	1318	1408	3373	1424
1986	2945	11602	12806	9783
4645	1519	4217	3757	2808
43052	25872	53369	42485	31070
1572	1899	8488	7082	5741
6472	3024	7494	5336	4050

25584	24095	39148	28708	41854
339	152	418	293	204
718	270	668	580	516
1443	1957	6296	6703	6567
3393	2212	5706	4494	3951
55	50	130	205	350
11721	7177	13320	10358	8541
114	61	168	75	47
17650	32735	80028	62007	60526
1367	919	1931	1225	1452
1359	2144	3719	3211	3981
2848	3697	11798	11689	10357
538	742	1544	2920	981
1599	1694	6178	6572	5277
213	189	300	145	74
1959	1266	3069	2467	1679
10952	10947	34918	37894	34439
1389	690	1759	1356	882
746	1724	2742	2082	2028
350	472	1929	3110	1673
483	675	1445	1502	1254
1418	1609	2169	1308	1535
47	18	23	6	12
5606	3680	6471	4774	3820
2380	1369	2265	1726	1310
2971	1423	1831	1808	1350
1586	1152	2502	1930	1393
7949	4853	4015	3299	2068
310	99	163	137	138
946	270	856	641	694
10831	14266	54503	48575	44862
687	815	4718	4550	3548
622	1018	2599	1974	1655
1276	384	1239	910	642
21631	9978	30961	20040	11494
2358	1040	2260	2064	1657
1051	1357	5268	5325	4942
1064	402	1102	946	804
4357	6241	19930	17318	14059
3404	4465	8608	7696	6748
851	1173	2598	2549	1997
1094	1515	5719	5266	4603
1262	1096	2445	1131	942
2002	2602	4568	4221	5670
8263	11527	61010	52628	52483
138212	101830	95246	71578	52369
306	552	1294	2547	1038
1587	1471	2300	1283	890
349	335	2136	2519	1696
3882	2257	4528	3121	2767
20714	27241	93908	99066	91070
966	424	858	730	504

183	555	2122	1647	1241
719	657	1143	719	409
2314	3029	11043	9579	10439
1393	1730	3973	3945	4012
821	399	2221	3138	2563
943	1280	4269	4313	3553
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510979	373773	815749	653068	432949
991	626	1453	1058	729
12062	12029	21442	11939	8318
12411	18614	53327	68007	61213
2556	2770	3646	2328	1676
23212	8049	16666	13029	10690
1149	2100	5300	5592	4719
28632	19791	35784	27667	24848
4354	2311	4723	3927	2670
166	142	969	1021	973
10261	14657	31677	40863	30553
695	208	427	312	339
149	139	625	634	581
1090	639	2465	1896	1816
6903	4738	9525	8010	5580
2346	1197	5043	3540	3966
161978	64011	223130	158775	175144
9086	10219	25968	25266	23715
100	142	964	733	634
5601	3427	3152	2767	2517
93	172	1010	716	614
678	182	495	442	356
803	1070	4279	4760	3921
1551	1160	3336	2070	1948
1747	892	2673	1876	1876
856	1332	4347	5682	3798
24729	7863	65789	43178	40912
1465	636	2136	1539	1178
6503	2176	3662	4686	2925
1743	1322	2676	1855	1566
436	109	398	234	298
8973	3480	11634	7724	6433
569	88	799	665	618
876	284	642	454	339
24840	15750	26430	23008	18497
2436	1650	4650	3011	2573
2669	1653	2235	1790	1415
203	203	281	242	283
1005	1294	5018	4825	3645
16512	53721	102364	80097	65550
3217	4057	15531	15725	18045
571	321	608	472	427
261	281	1204	1692	1247
12398	14613	38251	57053	46574
789	1804	3923	3303	2775



1407	1299	2240	2124	1495
318	327	393	660	482
4647	5644	17323	13447	7186
305	233	804	436	395
1757	2184	4484	5122	3878
1235	554	1460	1092	911
422	728	2518	2493	2025
178	238	183	737	100
427519	196423	773747	526842	567639
2299	1389	3320	2662	2041
12828	6523	21802	12595	7315
403	310	1011	752	719
12308	10043	24402	17695	13308
666	1197	3801	3816	4131
1351	1087	2242	1871	1443
17	136	220	148	102
22	22	94	37	19
2075	2909	7918	7635	7183
1486	494	1079	943	648
697	582	1211	831	482
1015	1356	5466	5413	3906
2201	1072	2401	1625	1719
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632	496	2392	2305	1870
460	148	475	430	304
985	545	914	720	564
708	807	2347	2852	2217
1458	963	3287	2464	1866
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4201	3070	5217	4847	3609
427	259	421	316	321
137	65	85	67	74
1174	821	1410	1189	859
800	505	791	776	705
409	546	1597	1583	1632
1590	1887	9714	10077	7305
2986	1014	1524	1146	1033
888	2013	7472	4761	4331
6026	4112	6479	5572	4592
1577	1719	6769	5824	5214
1733	3113	9502	6574	5758
339	593	678	1058	465
1067	1006	979	641	487
1179	747	2043	1349	1568
193	193	257	178	92
5810	9444	20913	20590	22556
103	163	693	573	469
1992	3425	8157	7418	5251
6847	9459	32814	32855	29674
3438	4810	15336	15112	13800
354	145	555	347	299
5581	8979	23094	22687	20308

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309	190	939	594	321
2591	9115	22578	14922	12423
184	229	841	696	974
2860	1030	2260	2010	1694
891	1239	2168	1950	1669
1021	408	1177	962	658
14512	17073	52271	51496	47026
8103	7687	8513	6951	5481
1540	1680	6077	6188	5330
1697	1330	2167	1998	1309
782	999	3182	3148	2629
1275	1398	2686	1707	1071
347	367	609	367	306
3816	2021	5377	3842	2909
2503	1344	3421	2288	1959
6803	6705	20468	13523	7752
275	366	1380	1115	865
503	272	620	454	404
1790	2874	6540	5954	4454
97	112	669	685	587
156	62	152	188	120
3052	3717	10993	7425	4371
1658	674	2541	1900	1241
7252	7172	25412	23918	20472
2101	1855	2525	2259	1859
11198	7525	16035	12570	9916
5582	7143	18458	16695	14894
516	172	561	415	258
5192	8846	19084	13331	14161
420	240	204	132	144
276	149	503	389	349
851	370	704	549	469
1017	468	1185	897	734
2135	1742	2154	1852	1840
1673	1899	5268	4822	3764
1591	802	1444	1126	891
96	102	298	246	136
31732	17058	29171	23741	17575
1226	448	908	726	513
1023	1649	1708	725	683
461	628	1710	1982	1486
5459	2030	5916	5202	4027
15245	26517	57119	57058	45082
4192	2443	8295	6537	5040
526	858	2581	2297	1810
32251	46108	94559	81465	75190
272	77	234	177	152
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1014	525	1179	1141	588
117	119	847	658	644
316	485	1293	1279	1218

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46203	32962	73813	56006	47051
67508	54163	127391	105771	74206
4990	5492	16428	16308	13428
555	1134	2543	2467	1947
464	263	356	217	155
43480	39454	77954	62588	41129
2106	1031	1644	1487	1173
1766	1191	2857	2061	1314
3754	3031	15467	15559	15072
10004	8059	25010	16353	11437
674	994	1401	1179	1049
1305	1528	4886	4881	4241
125	19	165	115	31
1632	2097	8138	8313	6139
670	526	633	457	352
2269	3168	6837	5787	5031
640	754	1621	1863	1511
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73	50	126	89	69
5832	7307	27351	22172	17513
349139	315565	617610	454050	312941
123	21	155	119	45
18258	24058	16447	16340	12329
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817	795	2527	2687	2139
479	232	255	172	181
5207	5973	19336	19481	18793
7997	7612	31375	29387	27545
995	1196	2882	3375	2823
173	193	954	889	689
683	300	939	718	599
2659	3554	7496	6412	5961
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13800	13364	24338	26557	21212
1242	676	1937	1361	918
264	239	772	783	646
16899	7640	22419	16782	12408
1084	1035	2450	1507	1436
254	102	186	208	144
632	964	2803	2425	1944
1019	1314	3907	4698	4233
887	1140	3545	3233	2738
2053	2435	7577	6573	4017
224	243	637	1313	474
919	536	1726	1353	1036
952	1140	3288	3403	3201
7598	5216	12469	10018	7110
337	357	629	516	428
201	29	67	79	93

2704	3095	12993	11467	8534
812	864	3694	3301	2686
1379	1306	2564	1762	1509
3737	11978	36332	27427	18806
2359	2587	9614	9952	6955
920	592	3109	2026	1553
592	145	847	773	530
79	204	694	636	475
445	294	567	444	309
1113	688	1021	786	414
1982	2349	8652	8314	6599
12649	16869	64690	68058	50704
4168	5026	11191	10330	10096
5844	3856	8764	6587	3741
1736	1697	4973	5381	4812
2053	2518	13113	13209	11776
18665	9116	15055	11714	10549
3085	3861	9918	8589	6733
981	1325	4093	3233	2787
6608	5265	8818	7736	7011
5937	7576	28944	30578	30042
3067	3517	8197	7718	6766
3697	5838	11304	12330	9136
1428	1945	3796	4297	3547
302	756	1894	1467	1030
983	1271	5249	5566	4278
4286	4326	16925	17295	14892
2996	2943	5064	2948	2751
2481	3044	4807	2432	1714
271	73	277	206	188
1446	1440	2631	1626	1508
376	633	1866	1705	1388
705	155	164	371	286
3980	1423	3651	3290	2736
583	498	1991	2439	1563
35021	15565	75982	50037	58001
161	134	325	411	344
31154	41738	101882	89332	81944
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5641	3391	5148	3885	3142
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6951	7401	22178	24538	21052
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1717	854	3225	1959	1437
3887	1220	3062	3468	2304
13176	8637	14404	9270	8750
3408	2009	4185	3632	2726
1998	926	2412	1640	1745

374	185	345	312	176
11724	6936	14156	10062	8110
3992	2687	4740	4577	3523
3106	4712	23529	19659	14445
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633	973	2152	2673	1612
1660	727	1205	991	817
8469	10399	26907	27380	27274
44206	31252	76412	61563	48941
407	508	2018	2047	2003
10361	13629	55527	52478	42562
116	299	1085	822	620
14174	10181	23371	18229	13744
2463	1848	4510	3750	2777
487	409	601	282	214
335	419	549	331	316
71	216	276	162	217
2785	2136	3710	3647	2785
2753	2166	6674	4352	3192
770	359	978	711	742
1659	2590	7678	7638	6226
2422	2369	6258	6137	5382
3414	1552	4623	3981	2954
510	250	849	650	646
1729	1723	5145	5287	4589
1124	1345	4143	2340	2080
840	969	2798	2455	1767
565	324	617	423	391
800	1302	1605	1621	1699
49	41	84	41	35
1735	561	2138	1644	1752
8786	6102	18029	14828	11772
98895	106513	112884	90423	61245
801	855	2110	2152	2012
4464	3239	8105	6003	4988
1110	753	1578	1191	1139
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1686	2034	2866	2001	1668
425	155	1135	769	462
1561	1411	3286	2271	2266
2887	1756	5296	3827	3414
204	354	2085	1597	947
2960	3726	17142	15762	14631
1323	1062	2162	1351	1199
2703	3125	11682	10980	10937
634	788	2375	1980	1471
1549	1154	6526	7554	5815
4478	6138	7184	4427	2907
8462	8907	35188	33932	29202
356	621	2926	2595	2092
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405	505	1963	1902	1575

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1957	802	3081	2253	1482
1329	805	1825	1409	1362
2514	2648	2600	1680	1479
1877	1605	2582	1945	1665
564	995	3014	2446	1888
568	577	1568	1705	1568
2887	4287	13881	9969	8637
7039	11112	14002	12058	10103
9880	5072	8496	9132	6798
2662	3140	11175	10330	8556
623	424	1006	578	389
7023	4874	6475	5180	4228
2482	2966	7435	3737	4384
2859	1869	4189	3406	3289
735	762	1482	764	688
9007	11150	23426	23228	22899
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3704	2016	5808	4966	3691
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21835	12637	44762	36496	20711
17626	15838	60799	68273	56069
1503	1784	2687	2607	1956
7143	5335	10145	8329	7594
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1390	442	1223	1222	884
2916	4873	12702	11971	10424
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992	1692	4778	4182	3353
1342	1961	2996	2508	2377
2440	3606	5314	4704	3883
1582	2741	6141	5358	4975
12419	9604	18893	18468	16838
3220	2576	5275	4760	3318
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507	181	728	626	516
294	294	478	204	157
1120	529	2097	1659	1227
3100	4072	16034	14416	15282
519	580	2091	2188	1796
7539	8824	28756	28317	25360
21090	9816	28641	22352	15266
29484	37808	108319	109729	80875
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123027	109574	185205	161820	144890
2907	1327	3993	3225	2382
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38236	27910	64383	56589	39900
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79	176	585	537	679
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1396	1351	3019	2165	1710
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4236	4446	11345	12351	9876
375	393	700	570	444
2247	3003	8629	8690	7192
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513	429	1888	1904	1600
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3268	2307	4717	3560	2808
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2938	1542	5045	4330	3379
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2722	4640	6791	6807	5831
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3837	2693	4685	3280	3814
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465	647	1684	1642	1460
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171	91	225	206	132

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627	438	1708	900	885
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301	297	819	1154	657
2282	1402	3333	2555	2105
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2742	2848	7694	4922	3730
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386	168	572	474	329
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637	610	2248	2246	2292
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329	263	503	415	274
695	542	983	666	613
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326	572	526	715	521
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910	660	1999	1538	1334
307	145	363	249	173
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429	529	1001	859	833
704	368	655	561	397
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239	366	721	771	543
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2794	1850	4470	3134	2794
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483	507	1486	1605	1313
2618	1879	2991	2733	2131
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4957	3288	6952	5940	5404
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72	133	594	473	299
383	229	635	453	392
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602	473	1916	1206	707
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7130	6624	9279	7861	6832
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26613	25244	65980	65938	61460
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3904	1619	6228	5238	3812
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245	361	701	656	661
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369	251	1498	1466	1145
9296	8934	6434	5655	4784
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4975	6089	15957	13799	12519
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813	513	1194	981	866
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366	639	1077	902	724
785	967	1691	1726	1532
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437	220	348	325	263
607	1472	9702	6991	4544
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712	809	2116	2125	1882
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280	328	1011	929	731
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3715	4122	13118	12645	10075
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2539	2799	10708	10685	7699
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2923	1886	1927	2151	1831
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4699	5398	5672	3638	2861
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715	203	1809	1158	709
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6357	6412	19325	17847	14703
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1901	1466	3807	2480	2122
2769	1656	3101	2593	2084
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15588	12878	32867	26132	21178
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433	632	1938	1886	1509
1996	3151	7196	7309	4212
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617	1039	1375	1245	950
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540	416	715	614	461
926	1442	2164	1870	1619
1974	2523	5630	4998	4407
526	962	2690	2266	1407
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391	356	697	487	373
4658	5466	14366	13469	11163
2534	668	1815	1624	1438
384	566	1148	993	845
182	130	184	135	125
1374	1781	4913	4428	3994
171	176	487	609	520
5384	5685	11302	6656	4867
7258	4811	10079	8256	5947
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148	107	153	122	112
1506	1586	4741	2949	2702
784	1139	4375	4416	3664
1445	740	2619	2596	1655
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127	171	700	626	538
1920	1610	4829	3483	3034
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438	645	1166	945	751
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2775	3819	9721	8216	6376
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1268	1647	4540	4355	3933
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958	1223	5268	3187	3544
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4245	2899	5442	4810	3307
113	202	338	302	312
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15491	23689	40627	27032	27363
6479	7571	13858	9948	5529
677	662	1698	1715	1231
259	286	752	372	519
4016	7651	14940	11242	11646
7218	7589	28321	24290	21616
1814	1598	7932	7385	5659
11259	8183	13830	11353	7777
2678	1812	3024	2391	2242
18537	23988	33241	21629	17936
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4111	4528	9975	5501	5085
2778	4093	6069	5666	4922
3978	4489	14439	12987	11444
1327	1488	4505	4046	3940
1167	1410	2567	2234	1963
236	77	401	301	221
6824	10195	15722	10190	6083
21609	18463	41414	31438	23993
195	88	158	150	122
469	665	939	780	688
846	869	1793	1083	1020
319	296	713	403	236
3294	4183	7985	7117	6254
180	195	850	868	615
493	650	991	910	807
16754	19247	35773	19998	19113
16902	28718	52052	43933	33728
6884	3905	9601	8006	6436
4703	4522	6425	4954	3946
437	452	1091	1098	1060
937	1239	3619	3552	3558
2857	1709	3589	5494	3739
501	561	1477	1280	1046
10119	6420	22208	16404	14259
1753	954	2760	2034	1364
655	736	2436	2448	2291
1493	2284	3505	3055	2906
155	138	376	378	392
5882	5791	9457	5375	4912
965	844	1320	985	934
3789	4120	7053	4517	3263



81029	70115	127061	91035	65617
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868	862	2135	1208	1152
3812	1833	6527	5913	3465
966	1081	2925	1786	1444
1120	844	2200	2033	1792
1490	1531	5480	5224	4958
1685	2048	3419	3266	2866
526	132	947	935	648
1195	1030	2635	2114	1217
9083	10777	46046	35423	35276
4241	4158	10311	5830	6075
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1290	1842	3799	3621	3099
1944	1984	8282	7358	6070
3861	4740	11810	9856	8227
29103	36546	58104	41306	28022
6137	5394	11615	9207	7710
1658	1825	5664	5313	4483
4347	6542	22792	19932	13958
4443	4076	6619	5920	4973
7529	8262	27539	26615	19984
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1895	2596	2065	1741	1311
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533	522	896	649	561
522	331	789	712	615
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4247	5220	12494	6538	7827
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8700	10671	20513	19153	17294
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61	89	229	319	207
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296	520	2218	1802	1599
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116918	113809	470685	341146	265563
482	674	1921	1862	1579
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1990	1403	3559	2428	2164
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27005	37294	105548	98799	87336
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694	869	2806	2945	1984
168	159	236	93	100
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169	409	543	572	532
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97775	77860	275186	228901	173459
1074	993	4662	4602	2838
3765	3641	6127	4290	3898
154	251	394	139	96
2864	3826	9317	8402	7443
2036	2129	3269	2514	1888
707	838	1327	1165	744
1676	1874	4482	4266	4016
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1927	2279	6127	3632	3903
7637	6375	16693	15922	13042
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468	193	623	387	302
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532	601	883	426	532
168	87	295	160	119
233	398	1254	1214	1003
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1901	1089	2948	2541	1971
374	186	659	491	411
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3314	3115	7141	5215	4053
825	897	4029	3268	2665
219	311	680	622	572
835	1035	2290	2080	2477
395	327	2283	1940	1293
370	426	1175	1073	1021
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39	17	98	53	51
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2400	1501	3529	2923	2353
251	255	917	893	781
3180	3161	6103	4642	4321
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316	249	1127	1334	926
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2717	2606	5868	4361	4549
2216	2468	5832	5766	4723
856	550	1301	1014	740
2705	3312	7185	6312	5140
4046	2261	7034	5511	3941
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2420	3051	7776	7053	6013
497	419	896	703	368
3599	3306	8387	7062	4929
230	132	456	334	230
265	217	397	187	147
1933	939	3234	2555	2043
631	616	1965	2092	1936
351	705	1879	1384	1227
4331	2159	5086	4402	3323
390	391	1286	1233	981
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1672	1802	6573	5797	5820
3494	3688	8070	5652	4420
8790	17447	33769	28639	24162
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693	614	2779	1913	1708
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213	116	337	223	186
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4008	2779	5612	4585	3721
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188	113	384	267	204
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805	820	1928	1460	1102
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423	253	604	488	339
2634	1938	5193	4269	3172
79	118	392	339	299
2949	1812	6097	4664	3315
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1521	852	1957	1729	1409
12717	12222	35826	25040	18417
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17670	28457	52442	43810	44829
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38	43	257	227	235
717	393	1338	980	747
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643	301	1130	825	580
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473	419	724	710	712
1351	1842	3452	2412	1854
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1635	966	3352	2559	1998
11127	10979	29539	18405	14854
356	555	1404	1584	1139
336	404	762	746	506
821	750	3437	2860	2865
933	814	1999	1674	1277
664	1278	1592	1182	1309
431	231	452	409	273

1584	1919	4352	4871	3051
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1038	1292	3472	3279	2564
850	1104	2582	2909	1789
8488	5676	17330	14516	11409
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31	23	186	131	159
38104	53696	92232	97274	72979
392	539	1619	1607	1288
992	1565	5219	4171	3223
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3194	2649	7339	7286	6618
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279	335	714	728	558
11800	8900	23286	16314	10041
426	698	1837	1526	1063
6093	6046	14911	8670	8471
646	644	1434	1022	790
3726	2753	4325	4220	2897
282	96	435	233	184
160	78	302	217	150
1108	1046	3210	2714	2085
484	731	1142	1091	769
404	376	895	492	404
4189	3439	3770	2474	1534
9145	17369	35241	25829	27657
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19161	16743	54586	40895	31546
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205	296	312	335	265
488	498	2104	1783	1073
995	971	2700	1575	1421
1256	877	3167	2103	1791
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1841	2362	4686	4084	3518
101	136	385	390	295
1911	1751	3947	3855	3231
3026	3268	3763	2000	1751
4046	4019	5065	3965	3789
3289	3720	4643	4270	3655
1466	1621	3938	2483	2000
4404	4115	5099	4079	3547
2291	2614	11638	8905	8557
1439	587	2438	1888	1863
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704	1022	2252	2014	1959
481	299	706	531	364
519	524	1268	1341	1001
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5448	5892	14885	10892	7509
2019	3143	5562	5658	4523
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4984	3073	11439	8234	5942
3189	5445	19510	15263	11856
9506	12721	21963	17878	16773
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6586	4986	6884	5647	4321
1536	1388	5098	4554	3235
1300	1271	3499	3344	2814
2316	1752	3094	2447	2152
165	145	480	353	247
1304	1240	4383	4144	2967
4228	4116	11185	11655	9030
177	307	344	257	212
5489	5443	8914	6058	5681
393	442	831	532	402
1141	1141	1694	1512	1389
1672	1052	2314	1700	1455
1611	1976	3062	2817	2554
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106	101	306	288	191
162	95	260	204	132
873	669	2371	2282	1803
7423	8181	23244	21364	18352
6114	8069	14272	12511	10925
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857	878	3259	2646	2012
1513	892	2581	2044	1894
4828	5263	19267	20370	14526
1518	1686	5007	4469	3591
7448	8569	28682	25357	22143
13383	15748	35736	33066	29478
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6863	7517	27317	23377	22528
718	766	1943	1763	1711
3662	4393	8413	7564	6621
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1928	2580	8163	7289	5871
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2022	2152	4806	3000	3060
9385	7178	13136	9039	10531
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13013	11726	20898	14858	12890
1553	1736	5100	2606	2906
160	234	507	526	363
2310	2457	8188	7295	6241
2607	3113	4782	2666	2430
238	223	691	575	487
254	259	743	1064	897
2215	2389	5362	3532	2780
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132342	110271	232998	216396	147965
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1612	1757	3591	3372	3049
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529	805	1238	1315	1298
3342	3320	8307	5809	4617
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2520	2410	5112	3576	2437
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88959	81132	173106	153166	105558
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1953	1711	5149	4365	2339
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221	114	140	202	94
326	418	1208	774	1157
349	461	850	843	711
3227	3647	10218	9139	8854
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18343	22604	32082	19155	22825
3236	2519	4672	4019	2891
471	827	1680	1599	1481
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701	311	1566	1293	1028
385	379	1657	1596	1226
1939	1261	2359	1660	1818
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527	315	660	561	369
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700	401	1046	1219	1044
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434	417	1207	866	614
353	533	407	392	415
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846	883	1151	761	726
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2017	2872	4534	4293	3961
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13513	9373	25396	14502	8886
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1924	2081	5117	3152	2814
2007	2246	5720	3165	3144

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1854	2432	4369	2688	2508
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646	471	876	676	532
226	311	904	679	658
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777	485	1293	1015	878
1336	1821	5879	6067	4560
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383	411	932	929	618
885	656	2426	1779	2210
11504	10911	19857	16757	14842
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172	323	625	489	343
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813	599	2556	2133	2017
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266	303	439	384	263
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367	191	856	612	463
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3620	5816	13013	10567	11037
592	631	1890	1525	1278
1073	1013	3485	2291	1976
1342	2624	5404	5151	2948
2175	2678	5439	5190	4257
15871	19668	33686	27573	23037
769	765	2655	2290	1650
442	398	891	998	873
1597	2170	4043	2606	2480
61	57	334	244	270
3059	3410	8248	5110	4862
1964	2087	5549	4662	4123
837	412	1773	1081	829
13348	9930	31896	30370	20628
4118	3314	7810	6844	5585
24064	23466	34377	31225	26869
1637	2621	6573	5414	4660
946	1009	2721	2418	2101
306	252	868	596	514
171	86	270	377	218
267	250	356	312	164
651	514	859	667	434
570	1339	2618	1946	1575
1810	1350	11713	6987	6655
19914	17262	42974	38707	26708
263	404	643	415	397

364	154	406	340	330
2770	1511	3647	4204	2731
17218	15069	13092	10735	8003
1586	964	2931	2362	1799
1094	1602	3219	2416	2193
449	672	1084	959	806
586	859	1700	1386	1205
894	922	2538	2368	2102
43168	51540	116622	69592	67450
1552	1753	6134	5124	4704
56	77	302	247	188
71	85	348	301	221
3127	4040	7669	4893	5078
529	534	1046	1150	934
437	616	1221	1128	805
966	1255	2907	2580	2324

VD-5

	foldChange	pval	padj
22488	21.66868627	1.32E-185	1.85E-181
9387	17.19259865	2.46E-131	1.73E-127
6920	20.73450677	2.32E-125	1.09E-121
50859	11.14066321	2.43E-123	8.52E-120
313	0.058440724	1.09E-110	3.06E-107
27606	9.532845855	1.67E-108	3.91E-105
1578	81.89204513	2.03E-108	4.07E-105
384	0.130740308	5.21E-83	9.14E-80
3059	0.108760936	2.40E-78	3.74E-75
2870	0.120479298	9.70E-74	1.36E-70
349424	5.774640473	6.07E-73	7.74E-70
12366	0.126498166	7.32E-71	8.56E-68
23963	4.531760634	3.03E-70	3.27E-67
1710	12.59178255	3.37E-59	3.38E-56
2857	8.018247782	2.35E-57	2.20E-54
9648	0.162310056	6.49E-56	5.69E-53
9100	5.443367856	1.05E-55	8.67E-53
1188	0.171511861	7.98E-55	6.22E-52
70950	0.177242372	1.10E-54	8.14E-52
1197	0.162172699	1.59E-54	1.12E-51
55578	4.551138352	3.30E-54	2.21E-51
33839	4.324124624	6.30E-54	4.02E-51
13794	4.434330567	5.50E-53	3.36E-50
172	0.125095595	7.51E-53	4.39E-50
60790	0.157466892	3.39E-52	1.90E-49
8271	5.283277088	4.44E-52	2.40E-49
22482	0.161647473	6.82E-52	3.55E-49
26761	0.181689883	1.72E-51	8.63E-49
37452	0.16084331	2.14E-51	1.03E-48
985	0.169339191	1.87E-50	8.76E-48
8489	4.720618257	4.64E-50	2.10E-47
224	0.104822529	5.79E-50	2.54E-47
2535	0.193219628	2.19E-49	9.31E-47
61758	0.173348555	7.46E-49	3.08E-46
939	0.187408376	5.36E-48	2.15E-45
1593	0.205112512	3.48E-46	1.36E-43
1224	12.35314859	4.71E-46	1.79E-43
96	0.109234063	5.76E-45	2.13E-42
37043	3.807824387	7.34E-45	2.64E-42
26452	0.197191006	9.03E-44	3.17E-41
18593	0.216477568	1.57E-43	5.36E-41
7771	4.508814774	3.37E-43	1.13E-40
5648	4.259180011	7.12E-43	2.32E-40
3527	5.918368695	2.89E-42	9.22E-40
11554	0.219481126	3.69E-42	1.15E-39
3241	0.248420829	5.62E-42	1.71E-39
3600	0.256893858	6.50E-42	1.94E-39
12	0.111995806	1.55E-41	4.54E-39
4712	0.233281219	1.72E-41	4.83E-39
111	0.10848191	1.69E-41	4.83E-39
11045	3.814379345	3.91E-41	1.08E-38

22020	0.202962614	4.41E-41	1.19E-38
23567	3.488308032	8.82E-41	2.34E-38
5166	0.25682003	1.20E-40	3.13E-38
10534	3.90348553	1.67E-40	4.27E-38
699	14.36030821	4.40E-40	1.10E-37
1785	0.234599013	6.98E-40	1.72E-37
11784	0.213065955	5.06E-39	1.22E-36
36	0.122604491	1.21E-38	2.87E-36
30162	0.236861795	1.49E-38	3.49E-36
28403	3.413280998	2.47E-38	5.68E-36
6211	4.08716571	2.85E-38	6.45E-36
6467	0.255510931	5.54E-38	1.23E-35
10848	3.411323911	5.95E-38	1.30E-35
4262	0.237034584	6.73E-38	1.45E-35
429	0.161254819	9.22E-38	1.96E-35
2181	0.242990589	1.59E-37	3.34E-35
230662	3.59455467	1.80E-37	3.72E-35
10014	3.432333357	5.06E-37	1.03E-34
1594	0.24313849	8.38E-37	1.68E-34
653	0.198456687	1.09E-36	2.15E-34
2578	0.250731001	4.00E-36	7.80E-34
135	0.11923473	6.56E-36	1.26E-33
2908	4.666702529	1.04E-35	1.97E-33
2577	3.655277519	1.08E-35	2.03E-33
6123	3.9405239	1.77E-35	3.27E-33
1617	5.731041455	5.07E-35	9.25E-33
34	0.134751876	7.06E-35	1.27E-32
1634	0.25506094	1.70E-34	3.02E-32
1747	0.254944982	1.89E-34	3.32E-32
519	0.325207833	3.06E-34	5.31E-32
17887	3.371579995	3.39E-34	5.81E-32
1589	0.256032592	3.95E-34	6.67E-32
1725	5.612099356	5.45E-34	9.11E-32
1345	0.262308151	7.42E-34	1.23E-31
1813	0.260012712	1.70E-33	2.78E-31
5469	3.54973464	9.32E-33	1.50E-30
6275	3.390090548	1.95E-32	3.09E-30
8476	0.264965999	1.96E-32	3.09E-30
1663	0.263426399	2.47E-32	3.85E-30
228	0.215376774	1.30E-31	2.01E-29
341	0.203830316	1.36E-31	2.08E-29
223	0.217510685	3.06E-31	4.62E-29
175273	0.275018762	4.48E-31	6.68E-29
8831	3.268714086	7.66E-31	1.13E-28
8003	3.323046696	2.97E-30	4.34E-28
328	0.194827689	5.69E-30	8.24E-28
14849	2.997516346	7.02E-30	1.00E-27
99769	2.710652074	7.19E-30	1.02E-27
890	0.347867007	1.93E-29	2.70E-27
4355	0.342825646	2.17E-29	3.02E-27
14742	2.795683491	6.29E-29	8.65E-27
99772	0.284841396	1.79E-28	2.44E-26



1046	5.734564869	3.72E-28	5.02E-26
3006	0.371237392	4.53E-28	6.06E-26
4738	0.333896085	5.25E-28	6.95E-26
10087	2.813393992	1.60E-27	2.10E-25
2615	0.338941991	1.82E-27	2.37E-25
2318	4.143050681	2.04E-27	2.62E-25
54194	2.712008108	3.20E-27	4.09E-25
2971	3.032289811	3.29E-27	4.16E-25
158662	0.342070117	7.64E-27	9.58E-25
246	0.208063555	1.44E-26	1.79E-24
2913	0.334505841	1.54E-26	1.89E-24
4197	0.313143647	1.55E-26	1.90E-24
43316	2.829609285	1.58E-26	1.92E-24
2605	3.776622496	2.32E-26	2.78E-24
7347	0.36204808	3.15E-26	3.75E-24
4345	3.370554939	3.59E-26	4.24E-24
1930	3.927484274	4.59E-26	5.36E-24
45950	2.810899299	6.83E-26	7.92E-24
3200	3.67896764	6.91E-26	7.95E-24
27872	2.637161474	7.64E-26	8.72E-24
56518	0.306133496	7.72E-26	8.74E-24
10264	0.306170563	9.75E-26	1.10E-23
369	11.48918235	1.19E-25	1.32E-23
13561	0.331411421	1.41E-25	1.56E-23
4832	3.006018897	2.86E-25	3.14E-23
4373	0.358225499	3.01E-25	3.28E-23
2488	0.319097611	3.10E-25	3.35E-23
1962	4.081021988	6.62E-25	7.10E-23
6070	0.323094323	1.30E-24	1.38E-22
3059	0.335961663	1.63E-24	1.72E-22
335	17.21014433	2.08E-24	2.18E-22
674	0.281429166	2.52E-24	2.62E-22
267	0.235295957	2.70E-24	2.78E-22
14491	2.419882797	3.21E-24	3.29E-22
23743	0.28633412	3.63E-24	3.69E-22
40985	2.235396172	3.77E-24	3.80E-22
634	0.260620718	5.51E-24	5.53E-22
676	6.831071469	6.73E-24	6.69E-22
1265	0.332610372	7.22E-24	7.14E-22
11513	0.34842588	1.14E-23	1.12E-21
1234	0.356214793	1.99E-23	1.94E-21
11491	2.62356078	2.83E-23	2.74E-21
21193	0.366401746	3.23E-23	3.11E-21
764	6.188655311	4.58E-23	4.38E-21
15273	2.651990867	5.67E-23	5.38E-21
549	0.27628812	6.24E-23	5.88E-21
801890	0.404579395	1.06E-22	9.96E-21
4468	0.364326082	1.08E-22	1.00E-20
24016	2.329095693	1.46E-22	1.35E-20
3111	0.381508271	2.89E-22	2.65E-20
590	0.293900327	2.98E-22	2.72E-20
101195	0.336351648	4.92E-22	4.46E-20

3575	0.361507222	4.99E-22	4.49E-20
942	0.372587621	5.11E-22	4.57E-20
10455	0.363518081	5.65E-22	5.02E-20
7718	0.378112993	7.40E-22	6.53E-20
653	0.352376346	1.27E-21	1.12E-19
853	0.301365893	1.54E-21	1.34E-19
60741	0.361984424	1.74E-21	1.51E-19
612	0.259130439	1.90E-21	1.64E-19
2451	0.339713965	1.94E-21	1.66E-19
56569	2.398332591	2.06E-21	1.75E-19
4980	0.352417953	3.30E-21	2.79E-19
15943	2.539547384	3.73E-21	3.14E-19
5853	2.557727315	4.21E-21	3.51E-19
3082	0.374234461	1.06E-20	8.84E-19
3672	0.344458998	1.37E-20	1.13E-18
23333	2.406443675	1.42E-20	1.17E-18
451	0.268056291	1.55E-20	1.27E-18
1802	0.427274464	1.70E-20	1.38E-18
16543	0.377501585	1.73E-20	1.39E-18
13675	2.486848698	2.01E-20	1.61E-18
32500	2.398073091	2.27E-20	1.81E-18
249	0.274147194	3.03E-20	2.40E-18
3057	2.858420139	3.13E-20	2.47E-18
393	0.278452765	3.34E-20	2.62E-18
14227	1.790938243	3.68E-20	2.87E-18
15921	0.344933355	4.41E-20	3.42E-18
5714	2.646294546	6.00E-20	4.63E-18
18819	0.403308048	6.80E-20	5.21E-18
381	0.250439422	7.31E-20	5.57E-18
896	0.376817567	8.35E-20	6.33E-18
145	0.257597186	9.06E-20	6.84E-18
15513	0.368566082	1.19E-19	8.91E-18
4576	2.590692458	1.28E-19	9.57E-18
14664	2.376359605	1.47E-19	1.09E-17
1148	0.360649604	1.65E-19	1.22E-17
36492	2.516283468	2.59E-19	1.90E-17
8084	3.142632998	2.67E-19	1.95E-17
2460	0.362084514	2.75E-19	2.00E-17
9533	2.579057522	3.05E-19	2.21E-17
5373	2.556497678	3.32E-19	2.39E-17
12468	0.413391646	4.16E-19	2.98E-17
8023	2.138836283	5.36E-19	3.82E-17
1888	0.343176303	6.85E-19	4.86E-17
4257	2.176976644	7.74E-19	5.46E-17
32251	0.429280719	8.19E-19	5.75E-17
59774	0.401259208	9.86E-19	6.88E-17
41174	0.373756523	1.33E-18	9.21E-17
906	0.333344204	1.54E-18	1.07E-16
52413	2.181258206	2.17E-18	1.49E-16
9427	0.399527647	2.25E-18	1.54E-16
16984	0.40315563	2.57E-18	1.75E-16
5023	0.39189235	2.73E-18	1.84E-16

45031	0.430212247	2.73E-18	1.84E-16
2047	0.425374078	2.82E-18	1.89E-16
7282	0.414806131	3.08E-18	2.06E-16
3925	0.437710013	3.15E-18	2.10E-16
73791	0.363500115	3.50E-18	2.32E-16
717529	0.416649773	3.87E-18	2.55E-16
1606	0.372720408	3.96E-18	2.60E-16
2517	0.383851557	4.10E-18	2.68E-16
6988	2.12458069	4.47E-18	2.91E-16
206	0.356078054	4.62E-18	2.99E-16
1597	0.39272034	5.07E-18	3.27E-16
860	4.785241681	5.23E-18	3.35E-16
61	0.336331982	5.77E-18	3.68E-16
21798	0.382850925	6.01E-18	3.81E-16
479777	0.407643147	6.06E-18	3.83E-16
21961	2.287031972	7.60E-18	4.79E-16
2323	0.416883439	1.14E-17	7.14E-16
2118	3.008992768	1.15E-17	7.19E-16
748	0.315172867	1.19E-17	7.39E-16
1310	0.360755689	1.71E-17	1.06E-15
2192	0.410363665	1.76E-17	1.08E-15
4068	0.406997	1.81E-17	1.11E-15
3929	0.39803157	1.92E-17	1.17E-15
68	0.353276764	1.97E-17	1.20E-15
2922	0.360685611	1.99E-17	1.20E-15
2056	0.351542829	2.57E-17	1.55E-15
38304	0.416981045	2.81E-17	1.68E-15
576	0.302392963	3.51E-17	2.10E-15
336	0.286444522	3.55E-17	2.11E-15
1254	3.519140726	4.60E-17	2.72E-15
56645	0.422560075	4.97E-17	2.93E-15
1738	0.440564671	5.06E-17	2.97E-15
2333	2.778088589	5.10E-17	2.98E-15
523	0.293860408	5.76E-17	3.35E-15
23877	2.224229246	5.78E-17	3.35E-15
990	0.392820861	7.82E-17	4.51E-15
3323	2.629386735	9.08E-17	5.22E-15
12962	0.403671813	9.25E-17	5.30E-15
39905	0.394711867	1.00E-16	5.73E-15
27596	0.417866973	1.06E-16	6.00E-15
15997	0.436537856	1.18E-16	6.69E-15
6084	2.325830869	1.23E-16	6.94E-15
301	0.417136532	1.42E-16	7.96E-15
335653	0.456087284	1.92E-16	1.08E-14
6230	0.441409224	2.10E-16	1.17E-14
694	0.377690145	2.12E-16	1.18E-14
3126	0.411974809	2.25E-16	1.24E-14
16854	2.216986974	2.95E-16	1.62E-14
8839	0.439369511	2.94E-16	1.62E-14
954	0.393329922	3.32E-16	1.81E-14
834	0.379800105	5.02E-16	2.73E-14
613401	0.434288645	5.11E-16	2.77E-14

1446	0.389089629	6.00E-16	3.24E-14
10340	2.146454153	6.23E-16	3.35E-14
4967	0.43201728	6.26E-16	3.35E-14
4356	0.399017814	6.33E-16	3.38E-14
1242	0.413780515	6.41E-16	3.41E-14
2347	0.480894761	7.94E-16	4.20E-14
6416	0.428896589	8.04E-16	4.24E-14
6240	2.398992192	9.19E-16	4.83E-14
10888	2.162296015	9.58E-16	5.02E-14
911	0.384147397	1.01E-15	5.27E-14
5448	0.434972352	1.07E-15	5.55E-14
29283	2.240473637	1.13E-15	5.86E-14
7082	0.433898443	1.16E-15	6.00E-14
134123	2.162498116	1.23E-15	6.31E-14
3259	0.477465738	1.47E-15	7.51E-14
3450	0.469103301	1.48E-15	7.55E-14
2229	0.430092212	1.59E-15	8.07E-14
410	0.328873046	1.65E-15	8.37E-14
30398	2.166283334	1.74E-15	8.79E-14
5139	0.43827076	1.84E-15	9.24E-14
2077	0.419566477	1.94E-15	9.71E-14
1389	0.38767798	2.03E-15	1.01E-13
13727	0.420661466	2.01E-15	1.01E-13
1411	0.374839318	2.03E-15	1.01E-13
154	0.292778239	2.06E-15	1.02E-13
480	5.226840031	2.27E-15	1.12E-13
28173	2.223527944	2.32E-15	1.14E-13
2306	0.457800505	2.43E-15	1.19E-13
2918	2.520589752	2.72E-15	1.33E-13
275139	0.445611055	3.37E-15	1.63E-13
128870	2.033474118	3.37E-15	1.63E-13
14788	2.1058512	3.40E-15	1.64E-13
17112	2.073258899	3.67E-15	1.76E-13
1369	0.39702453	3.87E-15	1.85E-13
3186	2.239141152	3.97E-15	1.90E-13
2109	0.43457396	4.13E-15	1.96E-13
3405	2.442504146	4.46E-15	2.12E-13
37634	0.457381976	5.20E-15	2.46E-13
601	4.594032079	5.38E-15	2.53E-13
4330	0.450729189	5.48E-15	2.57E-13
80560	0.425440067	5.58E-15	2.61E-13
447	0.373626327	6.82E-15	3.18E-13
4032	0.426713886	7.24E-15	3.37E-13
10059	0.446447435	8.47E-15	3.92E-13
23803	2.006779047	9.64E-15	4.45E-13
20275	0.450874557	1.08E-14	4.97E-13
9062	2.169976009	1.19E-14	5.47E-13
2919	0.431203331	1.23E-14	5.61E-13
692	3.420284973	1.34E-14	6.12E-13
1503	2.792642699	1.59E-14	7.23E-13
1528	0.398229028	1.66E-14	7.50E-13
3459	0.443692086	1.77E-14	7.98E-13

55985	2.15634088	1.84E-14	8.27E-13
483	0.426690503	2.18E-14	9.79E-13
14785	0.435597564	2.59E-14	1.16E-12
4630	0.465608502	2.96E-14	1.32E-12
3330	0.420767429	2.97E-14	1.32E-12
1757	0.404201224	3.05E-14	1.35E-12
3125	0.467590737	3.72E-14	1.64E-12
744	3.2218415	4.28E-14	1.88E-12
609	0.396108658	7.23E-14	3.17E-12
2338	2.494786001	7.56E-14	3.31E-12
574	0.352351949	9.03E-14	3.93E-12
7111	2.11554505	9.19E-14	3.99E-12
93968	2.037883804	9.38E-14	4.07E-12
2757	2.414499994	9.85E-14	4.25E-12
14258	2.22670577	1.02E-13	4.40E-12
4667	0.46291141	1.04E-13	4.45E-12
91553	2.011498715	1.05E-13	4.49E-12
6359	0.497844022	1.05E-13	4.49E-12
2891	0.481996602	1.16E-13	4.95E-12
18631	0.462548378	1.31E-13	5.55E-12
151	0.255663968	1.39E-13	5.89E-12
16010	1.981543214	1.60E-13	6.73E-12
14400	0.447488694	1.62E-13	6.79E-12
119	0.316520025	2.15E-13	8.99E-12
4584	0.492706708	2.18E-13	9.10E-12
2809	0.505071644	2.54E-13	1.06E-11
6126	0.469002209	3.05E-13	1.27E-11
14661	1.985205007	3.23E-13	1.34E-11
8704	0.46195825	3.25E-13	1.34E-11
11059	0.492156302	3.24E-13	1.34E-11
6894	0.452457371	3.42E-13	1.39E-11
1605	0.504585289	3.41E-13	1.39E-11
7081	1.598653609	3.41E-13	1.39E-11
8459	2.05270893	3.44E-13	1.40E-11
8420	0.502088482	3.56E-13	1.44E-11
3388	2.262436163	3.64E-13	1.47E-11
1475	0.504430708	3.67E-13	1.48E-11
79310	0.465698688	3.74E-13	1.50E-11
464	0.345112452	4.01E-13	1.61E-11
12520	0.459909247	4.15E-13	1.66E-11
6057	0.505917213	4.77E-13	1.90E-11
426	0.363444592	5.21E-13	2.07E-11
123	0.291188636	5.26E-13	2.08E-11
87933	1.70819698	5.54E-13	2.19E-11
12645	0.446653356	6.01E-13	2.37E-11
8414	1.785125198	6.14E-13	2.41E-11
1585	2.205838851	6.51E-13	2.55E-11
15929	2.025671058	6.64E-13	2.60E-11
4934	0.447223469	6.91E-13	2.69E-11
49313	0.467552616	6.99E-13	2.72E-11
9570	1.983345985	7.54E-13	2.91E-11
6679	0.466283953	7.54E-13	2.91E-11

74159	1.714638053	8.13E-13	3.14E-11
320	0.350702306	8.23E-13	3.16E-11
749	0.393192916	8.63E-13	3.31E-11
12177	1.988897514	9.68E-13	3.70E-11
6441	0.494356548	1.00E-12	3.83E-11
283	4.305930359	1.05E-12	4.01E-11
13593	0.474943786	1.06E-12	4.04E-11
64	0.266842751	1.13E-12	4.28E-11
93540	1.978064681	1.36E-12	5.14E-11
2378	0.471056816	1.36E-12	5.14E-11
3882	2.043284514	1.37E-12	5.16E-11
16943	1.942762649	1.41E-12	5.27E-11
2786	2.138636016	1.42E-12	5.29E-11
9623	1.94400854	1.72E-12	6.41E-11
180	0.35237144	1.82E-12	6.77E-11
2910	0.485433574	1.89E-12	7.00E-11
58414	1.902434003	2.05E-12	7.57E-11
1451	0.447136915	2.09E-12	7.71E-11
3547	2.198348543	2.44E-12	8.98E-11
3265	2.210885373	2.68E-12	9.82E-11
1909	2.268205425	2.72E-12	9.94E-11
1557	0.517347791	2.83E-12	1.03E-10
6	0.149542404	2.95E-12	1.07E-10
5449	0.495105694	3.04E-12	1.10E-10
2086	0.473247887	3.41E-12	1.23E-10
2412	0.458841118	3.56E-12	1.29E-10
2235	0.485966759	3.72E-12	1.34E-10
3327	0.484304877	3.77E-12	1.35E-10
106	0.306138978	4.91E-12	1.76E-10
948	0.401935001	5.08E-12	1.81E-10
80854	1.943618546	5.24E-12	1.86E-10
5469	2.060448276	5.23E-12	1.86E-10
2869	2.150006721	5.28E-12	1.87E-10
1157	0.412191597	5.34E-12	1.89E-10
17903	0.467059286	5.93E-12	2.09E-10
3007	0.466834061	6.06E-12	2.13E-10
8028	2.001417004	6.10E-12	2.14E-10
1284	0.431545283	6.31E-12	2.21E-10
21466	1.905942464	6.34E-12	2.21E-10
10594	1.832009999	6.36E-12	2.22E-10
3152	2.062810615	6.51E-12	2.26E-10
6866	1.979892324	6.58E-12	2.28E-10
1242	0.494164871	6.94E-12	2.40E-10
8412	1.896344491	7.20E-12	2.48E-10
75936	2.008503944	7.39E-12	2.54E-10
71087	0.479781447	7.40E-12	2.54E-10
2044	2.219992839	7.47E-12	2.56E-10
1260	0.508833414	7.60E-12	2.59E-10
2188	2.203891391	7.91E-12	2.69E-10
4188	0.492273702	7.96E-12	2.70E-10
152643	1.940230396	7.94E-12	2.70E-10
922	0.41915287	8.17E-12	2.76E-10

1745	2.440423744	8.68E-12	2.93E-10
674	0.467651488	8.98E-12	3.02E-10
17497	1.92771301	9.04E-12	3.03E-10
6287	1.924607532	9.16E-12	3.07E-10
4380	1.961075257	9.18E-12	3.07E-10
6160	1.995273653	9.91E-12	3.30E-10
632	3.014422659	1.04E-11	3.45E-10
622807	0.529567295	1.05E-11	3.47E-10
986	0.464637833	1.06E-11	3.52E-10
14758	0.516837964	1.08E-11	3.57E-10
122391	1.828192129	1.11E-11	3.66E-10
2257	0.537802776	1.14E-11	3.74E-10
19615	0.440160397	1.18E-11	3.87E-10
8156	1.983166677	1.21E-11	3.96E-10
41605	0.488654298	1.24E-11	4.06E-10
4688	0.493103241	1.28E-11	4.17E-10
1336	2.489409688	1.32E-11	4.29E-10
47000	1.88747179	1.35E-11	4.38E-10
578	0.368945533	1.35E-11	4.38E-10
976	2.662568448	1.43E-11	4.62E-10
2764	0.484447989	1.44E-11	4.65E-10
6480	0.514422315	1.45E-11	4.66E-10
5268	0.503002997	1.46E-11	4.66E-10
277646	0.489870364	1.70E-11	5.42E-10
32313	1.800453017	1.90E-11	6.06E-10
912	2.710649589	1.94E-11	6.19E-10
4154	0.491698366	2.05E-11	6.52E-10
762	2.816238333	2.08E-11	6.59E-10
456	0.377309279	2.21E-11	6.97E-10
5841	2.006642121	2.22E-11	7.01E-10
2998	0.508928548	2.23E-11	7.03E-10
3355	0.483714597	2.33E-11	7.32E-10
6407	1.97836996	2.43E-11	7.62E-10
60279	0.499588381	2.56E-11	8.00E-10
2031	0.466637745	2.58E-11	8.02E-10
5351	0.459292313	2.57E-11	8.02E-10
2240	0.507632661	2.64E-11	8.20E-10
458	0.359682334	2.84E-11	8.81E-10
11416	0.480305874	2.93E-11	9.07E-10
894	0.400369914	2.97E-11	9.15E-10
605	0.389558836	2.98E-11	9.15E-10
21343	0.48875765	2.98E-11	9.15E-10
3794	0.516638085	3.08E-11	9.43E-10
2187	0.492433669	3.10E-11	9.48E-10
478	2.62895565	3.12E-11	9.53E-10
5966	1.928282834	3.14E-11	9.57E-10
109094	1.997976087	3.20E-11	9.73E-10
27685	1.904384568	3.28E-11	9.93E-10
886	0.422688057	3.31E-11	1.00E-09
1984	2.28367431	3.39E-11	1.02E-09
79950	1.783401982	3.55E-11	1.07E-09
4364	2.07088227	3.74E-11	1.12E-09

2388	0.52145511	3.98E-11	1.19E-09
623	2.358649139	4.02E-11	1.20E-09
13585	1.73054592	4.83E-11	1.44E-09
673	0.43251242	5.11E-11	1.52E-09
5428	1.85918484	5.12E-11	1.52E-09
1321	0.459260992	5.17E-11	1.54E-09
2939	2.126902312	5.57E-11	1.65E-09
366	2.76058839	5.69E-11	1.68E-09
906228	0.530191389	5.85E-11	1.73E-09
3593	0.508052758	6.29E-11	1.85E-09
11372	0.491159856	6.39E-11	1.88E-09
1353	0.465869278	6.84E-11	2.00E-09
21590	0.526473226	7.38E-11	2.16E-09
6770	1.997296296	7.49E-11	2.19E-09
1995	0.510527028	7.79E-11	2.27E-09
231	5.20751032	8.00E-11	2.32E-09
24	0.23107955	8.31E-11	2.41E-09
11074	1.86368476	8.48E-11	2.45E-09
1484	0.433702896	8.79E-11	2.53E-09
746	0.4849043	8.79E-11	2.53E-09
6215	1.926788836	9.32E-11	2.68E-09
2406	0.486924129	9.35E-11	2.68E-09
843	0.398201339	9.56E-11	2.74E-09
2962	1.979234002	9.72E-11	2.78E-09
345	0.390304406	9.82E-11	2.80E-09
881	0.454587721	1.01E-10	2.86E-09
3769	1.98479748	1.01E-10	2.86E-09
2700	0.514915447	1.02E-10	2.88E-09
427	3.758506464	1.24E-10	3.51E-09
5723	0.536203509	1.48E-10	4.16E-09
449	0.417046979	1.48E-10	4.16E-09
105	0.295595302	1.56E-10	4.38E-09
1341	0.495395605	1.56E-10	4.38E-09
1101	0.470779634	1.59E-10	4.43E-09
2555	2.118086325	1.59E-10	4.43E-09
10898	1.857882226	1.61E-10	4.50E-09
1807	0.442471335	1.68E-10	4.68E-09
4462	2.021757326	1.68E-10	4.68E-09
7008	0.52355972	1.69E-10	4.69E-09
8878	1.833482179	1.72E-10	4.76E-09
9643	1.876546892	1.77E-10	4.88E-09
698	2.338957773	1.81E-10	4.99E-09
666	0.513025748	2.04E-10	5.62E-09
2185	0.503125192	2.10E-10	5.77E-09
172	0.394628272	2.11E-10	5.77E-09
38127	1.845743075	2.15E-10	5.89E-09
565	2.782144979	2.17E-10	5.92E-09
9813	1.850522361	2.38E-10	6.49E-09
48676	1.869241045	2.56E-10	6.95E-09
21253	1.850913337	2.58E-10	6.99E-09
471	0.405686119	2.63E-10	7.12E-09
31509	1.841782162	2.66E-10	7.18E-09



9229	1.844712684	2.69E-10	7.26E-09
663	0.443086729	2.71E-10	7.31E-09
17081	1.972601292	2.80E-10	7.52E-09
1754	2.305778151	3.10E-10	8.32E-09
2749	0.473210002	3.11E-10	8.33E-09
3064	1.928136757	3.14E-10	8.40E-09
1101	0.455260695	3.17E-10	8.46E-09
77383	1.811586537	3.23E-10	8.59E-09
8430	0.552894979	3.25E-10	8.63E-09
7972	1.830742288	3.29E-10	8.73E-09
1926	0.531230282	3.41E-10	9.03E-09
4582	1.920621608	3.58E-10	9.46E-09
1605	0.548749517	3.59E-10	9.47E-09
497	0.46851888	3.87E-10	1.02E-08
4858	0.517073005	4.20E-10	1.10E-08
2754	0.510822277	4.19E-10	1.10E-08
11181	0.557515663	4.21E-10	1.10E-08
1432	2.206556607	4.22E-10	1.10E-08
601	0.43763631	4.46E-10	1.16E-08
8029	1.828851335	4.46E-10	1.16E-08
745	2.5740337	4.76E-10	1.24E-08
201	0.336863605	4.87E-10	1.26E-08
5874	0.573364988	4.94E-10	1.28E-08
2239	0.489899468	5.09E-10	1.31E-08
36786	1.767727614	5.09E-10	1.31E-08
2409	0.549974185	5.51E-10	1.42E-08
15733	0.525406231	5.54E-10	1.42E-08
22340	1.76731334	5.84E-10	1.50E-08
514	0.401682882	5.86E-10	1.50E-08
16232	1.81112086	6.05E-10	1.55E-08
204	0.393156438	6.39E-10	1.63E-08
676	0.423701897	6.42E-10	1.64E-08
794	0.440412578	6.47E-10	1.65E-08
1060	0.469447733	6.85E-10	1.74E-08
3396	0.536515391	6.86E-10	1.74E-08
6184	1.763208873	7.14E-10	1.80E-08
1754	0.48163851	7.21E-10	1.82E-08
205	0.391254528	7.42E-10	1.87E-08
29618	0.499651999	7.44E-10	1.87E-08
937	0.439937837	7.80E-10	1.96E-08
1114	0.586437728	7.91E-10	1.98E-08
2481	2.002437586	8.18E-10	2.05E-08
7271	0.504396383	8.46E-10	2.11E-08
80651	1.791786282	9.37E-10	2.34E-08
6258	0.542184669	9.51E-10	2.37E-08
2575	2.00255036	9.77E-10	2.43E-08
124761	1.728386884	9.81E-10	2.43E-08
139	0.347844369	1.03E-09	2.54E-08
1	0.08644386	1.10E-09	2.72E-08
1191	0.475563635	1.13E-09	2.79E-08
1148	2.377542931	1.14E-09	2.80E-08
1878	2.137387399	1.14E-09	2.80E-08

5145	1.927264865	1.15E-09	2.83E-08
1145	0.530517419	1.15E-09	2.83E-08
483	0.385584559	1.16E-09	2.84E-08
70808	0.538108474	1.22E-09	2.98E-08
110338	0.553281068	1.29E-09	3.14E-08
21423	1.740391444	1.31E-09	3.19E-08
3262	1.983140254	1.34E-09	3.25E-08
283	0.413186962	1.45E-09	3.51E-08
60677	0.551854287	1.47E-09	3.56E-08
2165	0.495543375	1.50E-09	3.62E-08
2642	0.528900977	1.53E-09	3.69E-08
25355	1.749685757	1.53E-09	3.69E-08
18035	0.553862341	1.65E-09	3.97E-08
1759	1.95234248	1.75E-09	4.21E-08
5801	1.812331703	1.77E-09	4.25E-08
93	0.273501575	1.79E-09	4.28E-08
10127	1.784056784	1.81E-09	4.32E-08
481	0.486652934	1.81E-09	4.32E-08
8155	1.748941709	1.89E-09	4.49E-08
2723	1.906475281	1.89E-09	4.49E-08
8512	1.775914605	1.90E-09	4.50E-08
86	0.318187067	1.97E-09	4.67E-08
30902	1.745668711	2.03E-09	4.80E-08
408993	0.571729819	2.10E-09	4.96E-08
94	0.283627044	2.14E-09	5.03E-08
16121	0.591928157	2.15E-09	5.04E-08
9202	1.695666499	2.34E-09	5.50E-08
2932	1.847788608	2.35E-09	5.51E-08
202	0.400269393	2.37E-09	5.54E-08
31507	1.758208063	2.49E-09	5.81E-08
44662	1.752708786	2.60E-09	6.06E-08
5001	1.762372312	2.69E-09	6.26E-08
1189	2.253610779	2.74E-09	6.36E-08
1045	0.464525307	2.76E-09	6.40E-08
10138	1.720419912	2.95E-09	6.83E-08
16605	0.516469548	2.98E-09	6.89E-08
41757	1.610478215	3.00E-09	6.93E-08
1378	0.504563646	3.19E-09	7.36E-08
1052	2.159625688	3.22E-09	7.41E-08
20767	0.516235573	3.26E-09	7.50E-08
1629	0.555474376	3.37E-09	7.72E-08
170	0.369332975	3.42E-09	7.83E-08
3208	1.915949496	3.71E-09	8.47E-08
6683	1.798872989	4.50E-09	1.03E-07
5124	1.820912315	4.52E-09	1.03E-07
6673	1.711244913	4.60E-09	1.05E-07
1113	2.179771056	4.65E-09	1.06E-07
1559	0.517304048	4.66E-09	1.06E-07
4922	1.817190591	4.74E-09	1.07E-07
12388	0.552837075	4.82E-09	1.09E-07
539	0.500827654	4.85E-09	1.10E-07
104	0.27739261	4.96E-09	1.12E-07

12614	1.747304358	5.14E-09	1.16E-07
4828	1.800803542	5.46E-09	1.23E-07
2425	0.560510657	5.60E-09	1.26E-07
26000	1.893754697	5.63E-09	1.26E-07
10689	1.715084648	5.89E-09	1.32E-07
2129	0.545124351	6.37E-09	1.42E-07
1010	0.449727337	6.38E-09	1.42E-07
831	2.521276701	6.46E-09	1.44E-07
452	0.467593318	6.63E-09	1.47E-07
815	0.493770782	6.67E-09	1.48E-07
10762	1.738683539	6.87E-09	1.52E-07
74205	1.764407761	6.99E-09	1.54E-07
15530	1.680310977	7.33E-09	1.62E-07
5158	0.540952061	7.36E-09	1.62E-07
7622	1.693033996	7.55E-09	1.66E-07
18177	1.77974811	7.70E-09	1.69E-07
18117	0.509648395	7.70E-09	1.69E-07
11251	1.681874513	7.73E-09	1.69E-07
3892	1.809207748	7.80E-09	1.70E-07
10390	0.569334119	7.95E-09	1.74E-07
49239	1.777089984	7.98E-09	1.74E-07
11378	1.676719168	8.28E-09	1.80E-07
18411	1.725957975	9.12E-09	1.98E-07
5982	1.755922327	9.38E-09	2.03E-07
1147	2.145798338	9.43E-09	2.04E-07
6306	1.800354516	9.45E-09	2.04E-07
25516	1.715861499	9.49E-09	2.05E-07
4025	0.586683961	9.52E-09	2.05E-07
2449	0.601379995	9.53E-09	2.05E-07
287	0.374092317	9.84E-09	2.11E-07
2196	0.562033565	1.01E-08	2.17E-07
2149	2.015258657	1.04E-08	2.22E-07
457	0.382564701	1.18E-08	2.52E-07
4254	0.515352186	1.21E-08	2.58E-07
2742	1.785459028	1.23E-08	2.62E-07
75466	0.550589346	1.25E-08	2.67E-07
620	2.336489833	1.41E-08	2.99E-07
128442	1.692627294	1.41E-08	3.00E-07
1318	0.56283037	1.41E-08	3.00E-07
1380	0.48484711	1.42E-08	3.00E-07
6368	0.559055708	1.44E-08	3.04E-07
1988	0.556719172	1.45E-08	3.05E-07
965	0.476694461	1.46E-08	3.07E-07
4178	0.545000209	1.47E-08	3.09E-07
268002	0.599335141	1.48E-08	3.10E-07
33285	1.684890592	1.52E-08	3.19E-07
13190	1.73197669	1.57E-08	3.29E-07
2372	0.524175872	1.67E-08	3.50E-07
3403	0.508651354	1.68E-08	3.51E-07
14321	0.547457527	1.68E-08	3.51E-07
4895	0.553020981	1.68E-08	3.51E-07
2522	0.526393038	1.72E-08	3.57E-07

289	0.419339709	1.73E-08	3.59E-07
13883	0.54037816	1.76E-08	3.66E-07
5361	0.570159758	1.78E-08	3.67E-07
22681	1.783843885	1.82E-08	3.75E-07
7872	1.807537515	1.83E-08	3.78E-07
3107	1.855990462	1.87E-08	3.85E-07
1631	0.491025385	1.90E-08	3.92E-07
45571	1.698013125	1.93E-08	3.96E-07
72468	0.565890523	1.93E-08	3.96E-07
3276	1.88572706	2.00E-08	4.10E-07
62154	1.742397382	2.03E-08	4.15E-07
1084	2.296348566	2.03E-08	4.15E-07
21087	0.560852531	2.05E-08	4.18E-07
4648	0.571785658	2.06E-08	4.19E-07
396	0.489205326	2.06E-08	4.20E-07
351	0.519753467	2.11E-08	4.28E-07
343	3.039813421	2.11E-08	4.28E-07
4258	0.579361073	2.13E-08	4.32E-07
4714	0.581889295	2.21E-08	4.47E-07
1106	0.494126386	2.26E-08	4.57E-07
8676	1.751048391	2.32E-08	4.68E-07
8611	1.634298084	2.43E-08	4.89E-07
5228	0.545378311	2.46E-08	4.94E-07
1001	0.493097558	2.52E-08	5.06E-07
7261	1.685763663	2.52E-08	5.06E-07
2427	0.596738146	2.67E-08	5.35E-07
2724	0.588151026	2.71E-08	5.42E-07
545	0.476186327	2.85E-08	5.69E-07
2557	1.836536309	2.88E-08	5.74E-07
69	0.304326233	2.88E-08	5.74E-07
2752	0.513190971	2.92E-08	5.81E-07
18933	0.574407211	3.17E-08	6.30E-07
72224	0.590764188	3.30E-08	6.54E-07
2850	1.782885854	3.53E-08	6.99E-07
6511	0.58550454	3.60E-08	7.11E-07
1644	0.544038399	3.64E-08	7.18E-07
14596	0.57894329	3.88E-08	7.64E-07
2588	0.607059016	4.01E-08	7.89E-07
728	0.479781846	4.04E-08	7.95E-07
3333	0.584917575	4.05E-08	7.95E-07
5350	0.569651448	4.22E-08	8.28E-07
1558	1.989164455	4.26E-08	8.33E-07
23710	1.727426908	4.27E-08	8.35E-07
1713	0.562166698	4.35E-08	8.50E-07
18835	1.6812115	4.38E-08	8.53E-07
2349	1.813885192	4.53E-08	8.82E-07
12172	1.593150233	4.56E-08	8.87E-07
4372	0.632581157	4.63E-08	8.99E-07
45330	1.691879525	4.69E-08	9.10E-07
3211	1.894669455	4.89E-08	9.46E-07
7678	0.582883339	4.90E-08	9.47E-07
2482	1.889287984	4.92E-08	9.49E-07

1432	0.507476838	5.13E-08	9.89E-07
3878	1.702239083	5.26E-08	1.01E-06
140486	0.603909651	5.35E-08	1.03E-06
3848	0.606929709	5.39E-08	1.04E-06
3003	0.530413797	5.52E-08	1.06E-06
1806	0.551672728	5.68E-08	1.09E-06
2069	0.607016418	5.74E-08	1.10E-06
2233	0.575871599	5.97E-08	1.14E-06
2569	1.876153157	6.01E-08	1.15E-06
2660	1.793099378	6.08E-08	1.16E-06
10503	1.688135834	6.21E-08	1.18E-06
17031	1.62760244	6.24E-08	1.18E-06
13529	0.549947109	6.26E-08	1.19E-06
14290	1.656133948	6.27E-08	1.19E-06
688	0.511604488	6.27E-08	1.19E-06
6765	0.569241468	6.38E-08	1.21E-06
5972	0.622065522	6.52E-08	1.23E-06
5406	0.581522204	6.56E-08	1.23E-06
959	0.567865871	6.61E-08	1.24E-06
40488	1.642658598	6.74E-08	1.27E-06
16388	0.542651113	7.09E-08	1.33E-06
5789	0.571218192	7.13E-08	1.34E-06
25733	1.52729324	7.16E-08	1.34E-06
32484	0.577731705	7.32E-08	1.37E-06
94496	1.65943376	7.51E-08	1.40E-06
3337	1.649732363	7.91E-08	1.47E-06
12099	0.583051539	7.95E-08	1.48E-06
58444	1.668804288	8.33E-08	1.55E-06
14988	1.655761429	8.39E-08	1.56E-06
1642	0.498224221	8.44E-08	1.56E-06
17688	1.700187826	8.51E-08	1.58E-06
1342	2.000851719	8.82E-08	1.63E-06
5750	1.738082523	9.09E-08	1.68E-06
3514	1.705937972	9.16E-08	1.69E-06
6375	1.632562772	9.18E-08	1.69E-06
7623	1.712802133	9.39E-08	1.73E-06
24052	0.590002043	9.72E-08	1.78E-06
5460	0.596416714	9.75E-08	1.79E-06
4641	1.741042012	9.86E-08	1.81E-06
860	0.480984983	9.93E-08	1.82E-06
296	0.493199822	1.04E-07	1.90E-06
2157	0.542533563	1.06E-07	1.94E-06
27140	1.672882935	1.08E-07	1.96E-06
2838	1.814398305	1.08E-07	1.96E-06
42554	1.671972036	1.08E-07	1.97E-06
28785	0.548429251	1.09E-07	1.98E-06
128363	1.648530048	1.10E-07	1.99E-06
5817	1.724944321	1.10E-07	1.99E-06
852	2.240942133	1.15E-07	2.08E-06
920	0.479821525	1.15E-07	2.08E-06
5268	1.693843147	1.18E-07	2.13E-06
23792	0.595787442	1.22E-07	2.20E-06

360	0.40952605	1.23E-07	2.21E-06
4835	1.685603353	1.26E-07	2.26E-06
4390	1.609782287	1.27E-07	2.27E-06
5912	1.692992162	1.27E-07	2.28E-06
6300	1.640555646	1.32E-07	2.36E-06
95	0.313748877	1.33E-07	2.39E-06
243147	0.598584465	1.34E-07	2.39E-06
4294	0.551749575	1.34E-07	2.39E-06
36	0.297117876	1.36E-07	2.42E-06
6962	1.650777602	1.36E-07	2.42E-06
142	0.351419071	1.37E-07	2.43E-06
62463	0.589064345	1.37E-07	2.43E-06
1037	0.533082601	1.40E-07	2.49E-06
1188	2.236730059	1.41E-07	2.50E-06
120745	0.589093977	1.43E-07	2.52E-06
2850	0.598490968	1.43E-07	2.52E-06
2607	1.64278045	1.44E-07	2.53E-06
15872	1.584710437	1.45E-07	2.55E-06
678	0.544800346	1.47E-07	2.59E-06
11860	1.651461233	1.47E-07	2.59E-06
37783	0.535728639	1.48E-07	2.59E-06
2631	0.596430566	1.49E-07	2.61E-06
7357	0.567301666	1.49E-07	2.61E-06
103	0.356636937	1.49E-07	2.61E-06
1508	0.536772676	1.55E-07	2.71E-06
2727	1.763474432	1.58E-07	2.76E-06
23006	1.768522206	1.61E-07	2.80E-06
5066	0.586204691	1.62E-07	2.82E-06
11736	1.593187025	1.63E-07	2.84E-06
4742	1.698859117	1.70E-07	2.94E-06
3787	0.588231367	1.73E-07	3.00E-06
5738	0.57619399	1.76E-07	3.05E-06
9271	0.600835355	1.77E-07	3.06E-06
6996	1.671958623	1.78E-07	3.07E-06
14204	1.691836048	1.80E-07	3.10E-06
5674	0.589456498	1.85E-07	3.18E-06
3040	0.592739065	1.88E-07	3.23E-06
96378	1.701548931	1.94E-07	3.34E-06
3	0.161045755	1.96E-07	3.36E-06
864	0.47632667	1.97E-07	3.38E-06
4588	0.578465267	1.99E-07	3.41E-06
2043	1.744108901	2.03E-07	3.47E-06
63500	0.618041975	2.04E-07	3.49E-06
1961	1.861514443	2.13E-07	3.64E-06
2196	1.83372681	2.16E-07	3.67E-06
30101	1.650353761	2.17E-07	3.69E-06
1611	0.558426704	2.21E-07	3.75E-06
1835	0.569342016	2.21E-07	3.75E-06
3182	1.838870965	2.25E-07	3.82E-06
23643	1.684287609	2.30E-07	3.89E-06
14690	1.566576293	2.30E-07	3.89E-06
143	0.421015181	2.31E-07	3.90E-06

8285	1.699577676	2.39E-07	4.03E-06
740	0.555776951	2.45E-07	4.14E-06
5838	1.610853676	2.50E-07	4.20E-06
3144	0.58363284	2.59E-07	4.36E-06
12754	0.617630168	2.67E-07	4.49E-06
105	7.044141873	2.68E-07	4.49E-06
11321	1.598241225	2.70E-07	4.53E-06
3085	0.549140392	2.80E-07	4.68E-06
6710	1.629414583	2.84E-07	4.74E-06
6247	0.585893868	2.85E-07	4.76E-06
1250	1.98966732	2.91E-07	4.85E-06
954	0.554789609	2.99E-07	4.98E-06
1629	0.537011138	3.09E-07	5.14E-06
1134	1.893602048	3.11E-07	5.17E-06
3548	0.579333161	3.12E-07	5.18E-06
11153	0.608989436	3.18E-07	5.27E-06
1471	1.854404594	3.23E-07	5.34E-06
2518	0.625221035	3.24E-07	5.35E-06
6292	0.641028912	3.28E-07	5.41E-06
2836	0.620531993	3.32E-07	5.48E-06
4917	1.657546481	3.38E-07	5.57E-06
4739	0.630322273	3.39E-07	5.58E-06
7359	1.64113403	3.53E-07	5.79E-06
568	0.572030904	3.61E-07	5.92E-06
5001	1.633346565	3.67E-07	6.02E-06
8845	1.670757011	3.71E-07	6.07E-06
14076	0.579125913	3.76E-07	6.15E-06
14095	1.655620609	3.78E-07	6.17E-06
4279	1.646801304	3.80E-07	6.21E-06
5399	1.643583284	3.82E-07	6.23E-06
23229	1.669211897	3.90E-07	6.36E-06
132	0.334521343	3.92E-07	6.38E-06
20213	1.64548501	3.97E-07	6.44E-06
511	0.425575599	4.03E-07	6.54E-06
11311	0.595530552	4.04E-07	6.54E-06
4412	1.645330739	4.05E-07	6.56E-06
16378	0.602261532	4.05E-07	6.56E-06
572	0.488885773	4.06E-07	6.56E-06
389	0.480486338	4.13E-07	6.67E-06
2925	1.802511022	4.14E-07	6.68E-06
290	0.473741626	4.16E-07	6.69E-06
3481	1.709255003	4.22E-07	6.79E-06
17689	0.607653124	4.28E-07	6.88E-06
1123	0.572435143	4.29E-07	6.88E-06
2290	0.564237942	4.30E-07	6.90E-06
4937	0.619972472	4.33E-07	6.93E-06
517	0.509683298	4.37E-07	6.98E-06
676	0.554668803	4.47E-07	7.14E-06
3295	0.61104383	4.52E-07	7.18E-06
1072	1.963776116	4.51E-07	7.18E-06
7087	1.647865936	4.51E-07	7.18E-06
1423	1.785427693	4.50E-07	7.18E-06

20552	1.576435358	4.61E-07	7.32E-06
16859	0.632509392	4.74E-07	7.52E-06
2457	1.813906989	4.83E-07	7.65E-06
815	0.561632901	4.90E-07	7.76E-06
388	2.445054245	4.96E-07	7.83E-06
3597	1.706263938	4.96E-07	7.83E-06
2148	0.580434044	4.97E-07	7.84E-06
395	0.444735668	5.10E-07	8.03E-06
11185	1.591836117	5.11E-07	8.03E-06
11272	1.573661405	5.26E-07	8.27E-06
1527	1.775124311	5.37E-07	8.43E-06
27046	0.585273198	5.55E-07	8.70E-06
1318	0.5135493	5.56E-07	8.71E-06
1190	0.594770434	5.68E-07	8.88E-06
55290	1.537911128	5.68E-07	8.88E-06
11290	0.593988441	5.77E-07	9.00E-06
28800	0.634762356	5.83E-07	9.10E-06
3024	1.665309494	5.89E-07	9.17E-06
215105	0.646352512	6.01E-07	9.34E-06
10403	0.623319883	6.01E-07	9.34E-06
39769	0.548868703	6.02E-07	9.35E-06
660	0.477704131	6.08E-07	9.44E-06
852	0.430941511	6.16E-07	9.55E-06
7342	1.58494279	6.23E-07	9.64E-06
1206	1.822887684	6.26E-07	9.67E-06
494	0.507544104	6.33E-07	9.78E-06
4068	1.73975814	6.39E-07	9.86E-06
8710	1.586461495	6.44E-07	9.91E-06
12302	0.630622447	6.47E-07	9.96E-06
9908	1.427046062	6.50E-07	9.99E-06
16674	1.678550105	6.62E-07	1.02E-05
2609	1.729083723	6.68E-07	1.02E-05
16763	1.729913606	6.67E-07	1.02E-05
39876	1.592853892	6.92E-07	1.06E-05
1697	0.633150649	7.35E-07	1.12E-05
14099	1.692527089	7.50E-07	1.15E-05
24415	1.600296045	7.60E-07	1.16E-05
2181	0.627877163	7.68E-07	1.17E-05
72187	1.603299327	7.81E-07	1.19E-05
4275	0.571521728	7.89E-07	1.20E-05
538	0.552944315	8.03E-07	1.22E-05
8560	0.607753529	8.08E-07	1.23E-05
2175	1.84571517	8.09E-07	1.23E-05
1853	0.58965307	8.19E-07	1.24E-05
209990	0.648669715	8.37E-07	1.27E-05
4591	0.620815582	8.41E-07	1.27E-05
26910	0.58407136	8.43E-07	1.27E-05
1607	1.873201967	8.63E-07	1.30E-05
4997	1.73778331	8.81E-07	1.33E-05
660	0.565764404	8.84E-07	1.33E-05
3273	1.697401855	9.32E-07	1.40E-05
51	0.305057628	9.36E-07	1.40E-05



10537	1.603907486	9.46E-07	1.42E-05
3564	0.593672488	9.51E-07	1.42E-05
699	2.023895858	9.54E-07	1.43E-05
4051	1.53274431	9.63E-07	1.44E-05
867	1.979111341	9.72E-07	1.45E-05
955	2.165607335	9.79E-07	1.46E-05
4070	0.603565695	9.82E-07	1.46E-05
6716	1.609316379	1.01E-06	1.50E-05
3363	0.629022957	1.03E-06	1.53E-05
671	0.570915913	1.04E-06	1.54E-05
8859	0.607110803	1.05E-06	1.55E-05
1011	0.60736788	1.06E-06	1.58E-05
29	21.45669263	1.07E-06	1.58E-05
3868	0.600416733	1.07E-06	1.58E-05
23377	1.525612299	1.07E-06	1.58E-05
15223	0.61265832	1.07E-06	1.58E-05
2055	1.735793474	1.09E-06	1.60E-05
4282	0.59955286	1.09E-06	1.60E-05
1737	0.594511178	1.11E-06	1.63E-05
5466	1.577801107	1.12E-06	1.64E-05
2407	1.672865082	1.12E-06	1.65E-05
405	0.508993112	1.14E-06	1.67E-05
7646	0.609709448	1.15E-06	1.69E-05
138	0.365974673	1.15E-06	1.69E-05
2646	1.71606217	1.18E-06	1.73E-05
38041	1.565519366	1.19E-06	1.74E-05
5922	1.651240158	1.21E-06	1.76E-05
10095	1.560892261	1.21E-06	1.76E-05
1023	2.105715544	1.23E-06	1.80E-05
44	9.768566779	1.24E-06	1.80E-05
28913	0.619259872	1.25E-06	1.82E-05
30854	0.638939082	1.28E-06	1.86E-05
111154	0.663943701	1.31E-06	1.90E-05
1852	0.572628051	1.31E-06	1.90E-05
219377	0.643509142	1.33E-06	1.92E-05
9763	0.612439619	1.34E-06	1.93E-05
2797	1.633758935	1.34E-06	1.93E-05
1734	0.613973029	1.35E-06	1.94E-05
1453	1.808579667	1.35E-06	1.94E-05
6027	1.554754858	1.35E-06	1.95E-05
731	2.2322798	1.38E-06	1.99E-05
354	0.519906653	1.40E-06	2.02E-05
616	0.48095272	1.42E-06	2.04E-05
17040	0.616039234	1.44E-06	2.07E-05
50789	1.580678984	1.46E-06	2.09E-05
6269	0.654041662	1.52E-06	2.18E-05
3953	1.708300991	1.54E-06	2.20E-05
571	0.562184649	1.55E-06	2.21E-05
6821	1.628490688	1.55E-06	2.21E-05
26621	1.62992051	1.58E-06	2.25E-05
1956	1.683043525	1.61E-06	2.29E-05
4197	0.616653077	1.67E-06	2.38E-05

1375	0.614577965	1.69E-06	2.40E-05
13594	1.570556874	1.70E-06	2.40E-05
44113	0.611487331	1.70E-06	2.40E-05
7460	0.643681275	1.72E-06	2.43E-05
2921	1.737607828	1.76E-06	2.49E-05
114	0.469153614	1.80E-06	2.54E-05
4450	0.653197209	1.80E-06	2.55E-05
5325	0.634603107	1.80E-06	2.55E-05
52	4.240403362	1.82E-06	2.56E-05
993	0.579113143	1.84E-06	2.59E-05
885	0.607930924	1.86E-06	2.61E-05
11201	0.631140967	1.86E-06	2.61E-05
188	0.503388158	1.92E-06	2.69E-05
98528	1.489194753	1.94E-06	2.72E-05
6158	1.585259474	1.95E-06	2.74E-05
9470	1.562204051	1.96E-06	2.75E-05
1461	0.642902786	1.97E-06	2.75E-05
352	0.564437708	1.99E-06	2.77E-05
6787	0.590343802	1.99E-06	2.77E-05
26175	1.493856005	2.03E-06	2.82E-05
12987	1.528605161	2.05E-06	2.85E-05
22345	1.623174985	2.07E-06	2.87E-05
717	1.969027627	2.07E-06	2.87E-05
119	4.172873069	2.08E-06	2.88E-05
581	2.099218595	2.08E-06	2.89E-05
796	0.599485006	2.17E-06	3.01E-05
2839	0.638509396	2.19E-06	3.03E-05
282	0.426079273	2.19E-06	3.03E-05
7818	1.545571282	2.20E-06	3.04E-05
1486	0.571504432	2.20E-06	3.04E-05
15893	0.624611871	2.20E-06	3.04E-05
1844	1.805902667	2.22E-06	3.05E-05
1570750	0.667993532	2.23E-06	3.07E-05
753	0.592943194	2.28E-06	3.13E-05
4721	0.634550196	2.29E-06	3.14E-05
680204	0.658642794	2.29E-06	3.15E-05
2416	1.664667911	2.32E-06	3.17E-05
447	2.562189591	2.32E-06	3.17E-05
17854	0.632508133	2.33E-06	3.19E-05
1854	1.609193202	2.38E-06	3.25E-05
30	0.245242985	2.41E-06	3.28E-05
46997	1.569671995	2.50E-06	3.41E-05
122	4.614393098	2.51E-06	3.42E-05
1	0.243865193	2.61E-06	3.56E-05
35051	0.583824345	2.65E-06	3.60E-05
15942	0.62283343	2.67E-06	3.63E-05
1494	0.57536154	2.73E-06	3.70E-05
5213	0.652819503	2.75E-06	3.73E-05
1333	0.566649415	2.75E-06	3.73E-05
1100	1.877823348	2.79E-06	3.78E-05
10000	0.635390442	2.81E-06	3.80E-05
33008	0.588063698	2.83E-06	3.82E-05

2840	1.629002324	2.84E-06	3.83E-05
3723	1.564800421	2.89E-06	3.89E-05
12363	0.604979731	2.95E-06	3.97E-05
2198	1.764044509	2.96E-06	3.98E-05
162	0.401493833	2.99E-06	4.01E-05
11610	0.629572804	3.02E-06	4.05E-05
1503	1.801188883	3.06E-06	4.11E-05
1620	1.71832046	3.08E-06	4.13E-05
6980	0.642832702	3.12E-06	4.17E-05
8103	1.518103941	3.13E-06	4.19E-05
4207	0.633843538	3.20E-06	4.27E-05
6508	1.583345362	3.23E-06	4.32E-05
19585	1.542049398	3.24E-06	4.33E-05
9798	0.650031197	3.26E-06	4.35E-05
2166	0.631681158	3.44E-06	4.58E-05
1276	1.892890163	3.45E-06	4.59E-05
1453	0.574463674	3.49E-06	4.64E-05
333	2.834416467	3.50E-06	4.64E-05
204	0.37998239	3.50E-06	4.64E-05
34862	1.498059756	3.52E-06	4.67E-05
892	0.581573726	3.62E-06	4.79E-05
25674	1.518894013	3.64E-06	4.81E-05
1247	1.804717359	3.69E-06	4.87E-05
2310	1.617743806	3.71E-06	4.90E-05
1957	0.58534909	3.78E-06	4.98E-05
3095	1.694814451	3.79E-06	5.00E-05
60734	1.556966982	3.81E-06	5.02E-05
13741	0.627641113	3.87E-06	5.10E-05
881	0.597341299	3.88E-06	5.10E-05
1931	0.640145817	3.94E-06	5.17E-05
15687	0.63979864	3.95E-06	5.19E-05
898	1.815898214	3.97E-06	5.21E-05
6543	1.578491883	3.98E-06	5.22E-05
4445	1.639017896	3.99E-06	5.22E-05
455	0.498624465	4.03E-06	5.26E-05
5418	1.698316791	4.05E-06	5.28E-05
392	2.339961255	4.06E-06	5.30E-05
565	0.578925906	4.12E-06	5.37E-05
3392	1.621322933	4.16E-06	5.42E-05
4910	0.662842269	4.23E-06	5.51E-05
621	0.557059084	4.24E-06	5.51E-05
2313	0.652021203	4.24E-06	5.51E-05
10622	0.644751745	4.27E-06	5.53E-05
213	3.338598053	4.27E-06	5.53E-05
1271	1.806950932	4.32E-06	5.60E-05
26741	0.61304172	4.47E-06	5.78E-05
3057	0.623811603	4.49E-06	5.81E-05
3850	0.579257898	4.57E-06	5.90E-05
9999	1.500932879	4.58E-06	5.91E-05
15500	1.507377133	4.58E-06	5.91E-05
16598	1.532919267	4.64E-06	5.97E-05
6293	1.542720309	4.64E-06	5.97E-05

42144	1.540660385	4.66E-06	5.99E-05
20449	0.637703804	4.78E-06	6.14E-05
1659	0.570387382	4.84E-06	6.21E-05
12043	0.614531192	4.89E-06	6.27E-05
3509	0.580903932	4.90E-06	6.27E-05
1249350	0.674476131	4.90E-06	6.27E-05
7880	0.653770367	4.92E-06	6.29E-05
5183	1.546426103	4.93E-06	6.30E-05
9174	1.498123682	5.01E-06	6.40E-05
581	0.567183664	5.35E-06	6.82E-05
633	1.926884917	5.38E-06	6.84E-05
12005	1.537007393	5.37E-06	6.84E-05
555	1.755159056	5.48E-06	6.96E-05
2773	0.602400362	5.62E-06	7.14E-05
6915	1.509597584	5.67E-06	7.20E-05
763	2.12760889	5.72E-06	7.25E-05
8761	0.626098393	5.74E-06	7.26E-05
7089	0.647562459	5.74E-06	7.26E-05
3631	0.607880982	5.80E-06	7.33E-05
1471195	0.684064386	5.81E-06	7.34E-05
225	0.457532032	5.96E-06	7.53E-05
4893	0.671137086	5.97E-06	7.53E-05
1219	0.526845442	5.99E-06	7.55E-05
938	1.997872924	6.03E-06	7.60E-05
1290	1.88609149	6.06E-06	7.62E-05
19467	1.615605353	6.06E-06	7.62E-05
20742	0.670801667	6.07E-06	7.62E-05
8212	0.653026029	6.18E-06	7.73E-05
643	0.570545242	6.17E-06	7.73E-05
611	2.006586008	6.18E-06	7.73E-05
5571	1.539388682	6.28E-06	7.85E-05
18820	1.537665591	6.38E-06	7.98E-05
1125	0.587220587	6.39E-06	7.98E-05
1197	0.543955315	6.46E-06	8.06E-05
578	2.176744599	6.57E-06	8.18E-05
11369	1.527638211	6.57E-06	8.18E-05
10316	0.651962297	6.74E-06	8.39E-05
2296	0.606981481	6.78E-06	8.43E-05
27166	0.63027383	6.90E-06	8.57E-05
6687	0.613833669	7.04E-06	8.73E-05
1461	0.600396628	7.12E-06	8.83E-05
6250	0.651540904	7.15E-06	8.85E-05
10226	1.506538124	7.15E-06	8.85E-05
1704	1.751170949	7.45E-06	9.21E-05
2365	0.609870226	7.47E-06	9.23E-05
403966	1.435111555	7.52E-06	9.29E-05
1566	1.740944184	7.59E-06	9.36E-05
8658	0.650332013	7.64E-06	9.42E-05
2923	0.638999783	7.66E-06	9.43E-05
160	0.49317283	7.73E-06	9.51E-05
25078	1.493225947	7.76E-06	9.54E-05
162609	0.641886111	7.89E-06	9.69E-05

3015	1.658506406	7.93E-06	9.73E-05
3571	1.58348132	8.04E-06	9.85E-05
3217	0.636084763	8.16E-06	9.99E-05
3324	0.609791383	8.18E-06	0.0001
704	0.556573388	8.20E-06	0.0001
4000	0.670938466	8.20E-06	0.0001
83	4.257423484	8.22E-06	0.0001
31629	0.64345518	8.26E-06	0.000101
3222	0.622907858	8.34E-06	0.000102
6003	0.607225703	8.37E-06	0.000102
1678	0.597205219	8.40E-06	0.000102
1152	1.866658426	8.44E-06	0.000103
2140	1.62659228	8.57E-06	0.000104
122507	0.656989863	8.59E-06	0.000104
92377	1.527469537	8.59E-06	0.000104
2305	1.714100504	8.70E-06	0.000105
2423	1.690799379	8.86E-06	0.000107
5673	1.558485895	9.05E-06	0.000109
3593	1.596310827	9.25E-06	0.000112
1246	0.62489911	9.25E-06	0.000112
9233	1.578825305	9.46E-06	0.000114
1524	1.701563493	9.49E-06	0.000114
7462	0.676594426	9.55E-06	0.000115
734	0.576588217	9.55E-06	0.000115
2542	1.613765635	9.57E-06	0.000115
7441	1.522098168	9.58E-06	0.000115
1998	1.686747615	9.69E-06	0.000116
2465	1.531664105	9.81E-06	0.000118
489	0.575599613	9.89E-06	0.000118
16772	1.500479116	9.90E-06	0.000118
2231	0.533013278	9.95E-06	0.000119
1442	1.736840458	1.02E-05	0.000121
167	0.479631545	1.02E-05	0.000122
6309	1.558438318	1.02E-05	0.000122
929	1.865355905	1.03E-05	0.000123
7565	0.668212516	1.05E-05	0.000125
9015	0.628242783	1.06E-05	0.000126
13960	1.519662149	1.07E-05	0.000127
132	0.468778151	1.08E-05	0.000128
4018	0.663853392	1.08E-05	0.000129
5960	1.589986479	1.10E-05	0.000131
3301	0.61605826	1.11E-05	0.000131
9906	1.520704901	1.11E-05	0.000131
5604	1.56083907	1.11E-05	0.000131
4139	1.614091928	1.11E-05	0.000131
906	0.598153697	1.11E-05	0.000131
437	2.088533378	1.11E-05	0.000131
2735	1.483443628	1.11E-05	0.000131
44408	0.64463591	1.12E-05	0.000132
25293	0.640365161	1.13E-05	0.000133
15390	1.569647456	1.14E-05	0.000133
101	0.429853363	1.14E-05	0.000134

347	0.482865443	1.16E-05	0.000136
13446	0.650041405	1.17E-05	0.000138
2178	0.641092448	1.19E-05	0.000139
1680	1.632178682	1.22E-05	0.000143
29077	1.555893891	1.23E-05	0.000144
11061	1.483333416	1.24E-05	0.000145
2220	0.639454427	1.27E-05	0.000149
928	1.887222367	1.27E-05	0.000149
5108	0.653137667	1.29E-05	0.00015
1802	0.586896211	1.29E-05	0.00015
1059	1.724452946	1.29E-05	0.000151
4725	0.698108506	1.32E-05	0.000153
10073	1.510037817	1.32E-05	0.000154
21576	1.465534803	1.33E-05	0.000154
6245	1.556211365	1.33E-05	0.000154
3230	0.65365901	1.34E-05	0.000155
2971	0.647460317	1.34E-05	0.000155
3091	1.66582777	1.35E-05	0.000156
5416	1.524961289	1.35E-05	0.000156
5215	0.651460909	1.37E-05	0.000158
451	1.920677165	1.39E-05	0.00016
8253	1.556753797	1.40E-05	0.000162
3994	1.522099083	1.42E-05	0.000164
8454	1.547965497	1.42E-05	0.000164
2527	1.717245735	1.44E-05	0.000165
1082	0.598120301	1.47E-05	0.000169
1481	1.760061711	1.47E-05	0.000169
361	0.507045095	1.49E-05	0.00017
59117	1.476183388	1.49E-05	0.000171
107	0.345620572	1.51E-05	0.000172
247	1.861378781	1.50E-05	0.000172
18914	1.513854712	1.51E-05	0.000173
5598	1.559326523	1.51E-05	0.000173
3432	1.578115072	1.52E-05	0.000173
55855	0.683749569	1.52E-05	0.000173
6885	1.563438994	1.52E-05	0.000173
1022	1.765627484	1.53E-05	0.000174
10040	0.671108435	1.53E-05	0.000174
10461	0.679419531	1.55E-05	0.000177
10706	1.458825879	1.57E-05	0.000178
3338	1.553489854	1.57E-05	0.000178
33824	1.508651395	1.58E-05	0.000179
18331	1.506627388	1.58E-05	0.000179
1682	0.634444445	1.58E-05	0.000179
2599	1.633346151	1.60E-05	0.000182
12533	1.470739752	1.63E-05	0.000184
3857	0.666335932	1.65E-05	0.000187
2471	0.662036069	1.66E-05	0.000188
323163	0.687324458	1.68E-05	0.000189
21641	0.679605044	1.69E-05	0.000191
11389	1.490182083	1.70E-05	0.000191
9983	0.630931649	1.73E-05	0.000195

65926	1.51214497	1.75E-05	0.000197
5575	1.535648003	1.76E-05	0.000198
415	0.520515508	1.77E-05	0.000198
3949	1.532321851	1.78E-05	0.0002
270	2.678737597	1.78E-05	0.0002
4529	0.687552107	1.78E-05	0.0002
1850	0.620803974	1.79E-05	0.0002
5903	0.637209659	1.80E-05	0.000201
596	2.035637759	1.82E-05	0.000204
39	0.231929398	1.83E-05	0.000204
44812	0.690677729	1.84E-05	0.000205
8768	0.68513924	1.85E-05	0.000206
2325	1.567555394	1.85E-05	0.000206
526	0.591427028	1.86E-05	0.000206
18295	1.542821959	1.87E-05	0.000208
35365	1.510629464	1.87E-05	0.000208
9280	1.503141208	1.89E-05	0.000209
11693	0.625599341	1.89E-05	0.00021
3518	0.631049384	1.90E-05	0.00021
21423	0.682335657	1.91E-05	0.000211
1151	0.642895884	1.92E-05	0.000213
7796	0.683698923	1.93E-05	0.000214
8154	1.493559471	1.94E-05	0.000214
18587	1.490297548	1.96E-05	0.000217
5927	1.524548741	1.98E-05	0.000219
3163	1.527709134	2.00E-05	0.00022
297	0.492324937	2.00E-05	0.00022
8836	0.706623252	2.00E-05	0.00022
38534	0.651671282	2.03E-05	0.000223
278	0.455681507	2.06E-05	0.000226
1071	1.676794385	2.06E-05	0.000226
1358	0.644828056	2.07E-05	0.000227
449	0.568253145	2.07E-05	0.000227
10746	1.468211562	2.11E-05	0.000231
1045	1.758182265	2.11E-05	0.000231
1190	1.672953619	2.12E-05	0.000232
28709	0.674510529	2.13E-05	0.000232
57048	1.516663124	2.13E-05	0.000232
11467	0.632093066	2.15E-05	0.000235
6778	0.66631082	2.17E-05	0.000236
1663	1.632790977	2.20E-05	0.00024
6300	1.545287816	2.20E-05	0.00024
6074	1.29999886	2.21E-05	0.00024
1801	1.610470911	2.25E-05	0.000245
21976	0.647446598	2.29E-05	0.000248
2431	0.609320111	2.31E-05	0.000251
3579	1.572113286	2.34E-05	0.000254
4452	1.531677189	2.35E-05	0.000254
573	1.8847902	2.35E-05	0.000255
6557	0.674075573	2.36E-05	0.000256
1519	0.629025591	2.39E-05	0.000259
4643	0.684606928	2.39E-05	0.000259

92514	0.645865993	2.41E-05	0.00026
2229	0.668911679	2.43E-05	0.000262
1810	0.64493793	2.44E-05	0.000263
4683	0.635739223	2.45E-05	0.000264
2499	0.66401388	2.48E-05	0.000267
2645	0.645975608	2.50E-05	0.000269
8746	1.488291978	2.53E-05	0.000271
4902	1.484754618	2.53E-05	0.000272
976	0.552247726	2.55E-05	0.000274
2174	0.64038989	2.55E-05	0.000274
56521	1.530659632	2.57E-05	0.000276
8889	0.677205534	2.59E-05	0.000277
31	0.318740935	2.58E-05	0.000277
4988	1.536426863	2.63E-05	0.000281
9699	1.491447074	2.64E-05	0.000282
13405	1.46139795	2.65E-05	0.000283
42588	0.684903038	2.67E-05	0.000285
12147	0.672480776	2.67E-05	0.000285
7554	1.488704617	2.70E-05	0.000287
22103	1.544342047	2.72E-05	0.00029
7878	0.674689112	2.73E-05	0.00029
33356	1.493895911	2.77E-05	0.000294
505	0.557436613	2.78E-05	0.000295
1923	0.715870166	2.80E-05	0.000297
472889	0.694835389	2.83E-05	0.0003
287529	0.681377415	2.85E-05	0.000302
7435	1.518519839	2.87E-05	0.000304
709	0.621306597	2.89E-05	0.000305
913	0.588651351	2.93E-05	0.000309
18639	0.615859202	2.94E-05	0.00031
451	2.0086221	2.94E-05	0.00031
10853	0.696161911	2.95E-05	0.000311
16401	1.545625453	2.97E-05	0.000313
3645	0.673388691	2.98E-05	0.000314
29014	1.455904064	3.01E-05	0.000317
854	1.763564202	3.02E-05	0.000318
7923	1.534596991	3.05E-05	0.00032
386	2.20647954	3.07E-05	0.000322
4261	0.677153916	3.11E-05	0.000327
2501	1.680502478	3.13E-05	0.000328
3873	1.583840337	3.15E-05	0.000329
16364	1.502962387	3.15E-05	0.000329
30408	1.494225023	3.14E-05	0.000329
4429	0.692332665	3.18E-05	0.000333
429528	0.704121769	3.19E-05	0.000333
2558	1.62509087	3.21E-05	0.000335
6779	1.50586198	3.22E-05	0.000336
8833	1.503703099	3.24E-05	0.000338
3018	0.645508816	3.26E-05	0.00034
1390	0.575988151	3.28E-05	0.000341
146132	1.5034281	3.30E-05	0.000343
18660	1.480989846	3.36E-05	0.000349



6099	1.529490796	3.36E-05	0.000349
7922	1.564006775	3.37E-05	0.00035
1662	0.657750627	3.38E-05	0.00035
2920	1.560446635	3.38E-05	0.00035
89	0.515868777	3.38E-05	0.00035
9885	0.610704917	3.39E-05	0.00035
2975	1.552922523	3.40E-05	0.000352
1307	0.592056368	3.41E-05	0.000353
4112	1.461706619	3.45E-05	0.000356
4484	0.711852959	3.48E-05	0.000359
275971	0.6911436	3.54E-05	0.000365
5336	1.505391456	3.54E-05	0.000365
6558	0.671411019	3.57E-05	0.000367
101	0.577104761	3.62E-05	0.000372
12926	1.480368263	3.65E-05	0.000375
3135	0.676892956	3.68E-05	0.000378
1410	0.652204143	3.71E-05	0.00038
6257	1.479988674	3.73E-05	0.000382
4556	1.492547713	3.73E-05	0.000382
5515	0.694062391	3.76E-05	0.000385
20191	0.677320296	3.80E-05	0.000389
9868	0.685398847	3.83E-05	0.000392
474	0.524336106	3.85E-05	0.000393
1746	0.623617238	3.87E-05	0.000395
760	0.630353068	3.89E-05	0.000397
317	0.482103961	3.91E-05	0.000399
1681	1.719428316	3.92E-05	0.000399
4471	1.514013633	3.93E-05	0.000399
8149	0.659731298	3.94E-05	0.000401
3040	0.634054677	3.98E-05	0.000404
442	0.554212749	3.98E-05	0.000404
8565	0.699432263	4.00E-05	0.000405
6403	0.676559188	4.00E-05	0.000405
4598	1.530559293	4.08E-05	0.000413
982	1.784405815	4.08E-05	0.000413
4073	1.534396206	4.12E-05	0.000417
2160	1.556733477	4.12E-05	0.000417
1476	1.633976286	4.13E-05	0.000418
8916	0.635889726	4.15E-05	0.000419
48462	1.475534363	4.16E-05	0.00042
787	1.670183459	4.21E-05	0.000424
67	0.380346435	4.26E-05	0.000429
23009	1.457774002	4.29E-05	0.000432
75	0.473563756	4.31E-05	0.000434
1157	0.599294925	4.34E-05	0.000436
41617	1.530915692	4.35E-05	0.000437
3456	0.642031128	4.39E-05	0.000441
1309	1.689310321	4.41E-05	0.000442
6340	0.681705197	4.42E-05	0.000443
9956	1.443203753	4.44E-05	0.000444
1778	1.605061587	4.47E-05	0.000447
2250	0.664858677	4.46E-05	0.000447

5442	0.667818698	4.47E-05	0.000447
11401	1.507027581	4.48E-05	0.000448
87843	0.65156392	4.54E-05	0.000453
4	0.088953264	4.57E-05	0.000456
5603	1.548144428	4.59E-05	0.000457
4779	1.475411855	4.59E-05	0.000458
5485	0.701277145	4.62E-05	0.00046
6636	0.641182407	4.69E-05	0.000466
7034	1.491084375	4.71E-05	0.000469
316	0.537197573	4.73E-05	0.00047
2077	0.658935115	4.77E-05	0.000473
6881	0.676346808	4.82E-05	0.000478
7545	1.457199311	4.83E-05	0.000479
1297	0.607127411	4.84E-05	0.000479
8501	1.453416459	4.85E-05	0.00048
6231	0.637963321	4.86E-05	0.000481
9074	1.450930432	4.95E-05	0.000489
1747	0.612421408	4.98E-05	0.000492
9783	1.466472388	5.03E-05	0.000497
400	0.6068341	5.07E-05	0.0005
8057	0.685017063	5.08E-05	0.000501
329	0.535609707	5.09E-05	0.000501
177	0.544204665	5.11E-05	0.000503
3873	0.626556979	5.16E-05	0.000507
3054	1.541877899	5.22E-05	0.000513
1974	1.679851169	5.25E-05	0.000516
5865	0.626981886	5.29E-05	0.000519
1430	1.613420059	5.30E-05	0.00052
3413	0.656974518	5.31E-05	0.00052
9831	1.476392175	5.32E-05	0.000521
6530	0.692301627	5.33E-05	0.000521
33445	1.537663669	5.35E-05	0.000524
4041	0.678954757	5.37E-05	0.000525
5223	1.491770968	5.39E-05	0.000526
2222	0.655074724	5.39E-05	0.000526
4933	1.45757518	5.40E-05	0.000527
498	0.595992275	5.46E-05	0.000532
229	0.506071113	5.48E-05	0.000533
10559	1.465934669	5.49E-05	0.000535
5533	0.659498681	5.50E-05	0.000535
10538	1.293090279	5.53E-05	0.000537
36	0.298955692	5.55E-05	0.000539
2772	0.678817076	5.59E-05	0.000543
4131	1.492888575	5.61E-05	0.000544
5546	0.700244074	5.61E-05	0.000544
6455	1.510317248	5.69E-05	0.000551
6071	1.538272898	5.71E-05	0.000553
7879	1.478179951	5.77E-05	0.000558
331	0.530086179	5.79E-05	0.000559
3534	1.503583557	5.80E-05	0.00056
1438	0.663513784	5.81E-05	0.00056
941	1.724457559	5.81E-05	0.00056

3340	0.680010631	5.94E-05	0.000573
22951	1.446585515	5.97E-05	0.000575
536	0.564807216	6.02E-05	0.00058
4859	0.660885476	6.03E-05	0.00058
427	1.998533203	6.06E-05	0.000582
4949	0.656134496	6.06E-05	0.000582
40	0.303304633	6.07E-05	0.000582
40	0.303304633	6.07E-05	0.000582
40	0.303304633	6.07E-05	0.000582
807	0.605303813	6.05E-05	0.000582
10826	0.701533765	6.09E-05	0.000583
2429	0.619872813	6.09E-05	0.000583
26233	0.684644355	6.17E-05	0.00059
34741	0.672575801	6.17E-05	0.00059
11208	0.684303559	6.18E-05	0.00059
4424	0.698932868	6.19E-05	0.000591
72042	1.422250261	6.24E-05	0.000595
3520	0.646499543	6.30E-05	0.0006
7584	0.679752709	6.30E-05	0.0006
0	0.182962728	6.35E-05	0.000604
5458	1.505320474	6.35E-05	0.000604
11953	1.433645128	6.35E-05	0.000604
2988	0.625800981	6.37E-05	0.000605
2147	1.560646832	6.41E-05	0.000608
72081	1.470553917	6.41E-05	0.000608
5157	1.414848857	6.45E-05	0.000612
2683	0.670151273	6.50E-05	0.000616
427	2.17041109	6.52E-05	0.000617
1443	0.600085507	6.56E-05	0.000621
627	1.954473037	6.58E-05	0.000622
28083	1.392792919	6.61E-05	0.000625
4833	1.523271068	6.66E-05	0.000629
1121	0.582058493	6.68E-05	0.00063
8421	0.70236546	6.68E-05	0.00063
1858	0.643680267	6.69E-05	0.000631
1038	1.561420023	6.70E-05	0.000631
2501	0.705898048	6.75E-05	0.000635
552	1.866458211	6.76E-05	0.000636
7178	1.453345158	6.77E-05	0.000636
17639	1.422696058	6.92E-05	0.000649
2047	0.612615372	6.97E-05	0.000654
4183	1.393373211	6.99E-05	0.000655
13667	0.69550319	7.04E-05	0.000659
230	0.480708945	7.05E-05	0.00066
3768	0.638646165	7.06E-05	0.00066
19717	0.687334345	7.07E-05	0.000661
1675	1.647686613	7.14E-05	0.000667
1048	1.636301127	7.17E-05	0.00067
4042	1.505732935	7.18E-05	0.00067
2305	0.655713455	7.25E-05	0.000676
1768	1.642803923	7.26E-05	0.000676
456	0.554458077	7.28E-05	0.000678

5329	1.46398992	7.28E-05	0.000678
13944	1.435410264	7.31E-05	0.000679
2583	0.63473679	7.34E-05	0.000682
3976	1.508391204	7.36E-05	0.000683
2715	1.530299296	7.39E-05	0.000686
17768	0.668739044	7.40E-05	0.000686
1352	1.622933936	7.44E-05	0.000689
221	2.417183746	7.54E-05	0.000699
118609	1.436504273	7.58E-05	0.000701
2149	1.604691902	7.61E-05	0.000704
5708	1.516448201	7.74E-05	0.000715
6143	0.714961154	7.75E-05	0.000716
11184	1.389066954	7.95E-05	0.000734
0	0.019771325	7.97E-05	0.000735
861	1.683367001	8.06E-05	0.000743
15818	0.657118679	8.16E-05	0.000752
2077	1.600313809	8.18E-05	0.000754
11544	0.695467306	8.25E-05	0.000759
1422	0.651104906	8.28E-05	0.000761
4206	0.657500352	8.40E-05	0.000772
435	0.496795046	8.45E-05	0.000776
248	0.504760646	8.48E-05	0.000778
3232	1.447247862	8.57E-05	0.000787
1370	1.620805871	8.63E-05	0.000791
702	0.612278423	8.69E-05	0.000796
1677	0.669055037	8.70E-05	0.000797
43466	1.503064397	8.75E-05	0.000801
13433	1.438930338	8.84E-05	0.000809
3696	1.502371788	8.86E-05	0.000809
47420	0.689274889	8.85E-05	0.000809
4135	1.488270467	8.87E-05	0.000809
464	1.84164176	8.97E-05	0.000818
1609	1.544462907	8.99E-05	0.00082
2345	0.671859396	9.00E-05	0.00082
2450	0.660913972	9.02E-05	0.000821
1944	0.671092879	9.12E-05	0.000829
5870	1.45693594	9.13E-05	0.00083
457	1.905714616	9.19E-05	0.000835
4755	1.399741533	9.27E-05	0.000841
2360	0.702512688	9.32E-05	0.000845
5436	0.697019007	9.35E-05	0.000848
5831	1.369714936	9.35E-05	0.000848
2994	0.693838816	9.42E-05	0.000853
5936	0.68696671	9.45E-05	0.000855
13851	1.468202849	9.68E-05	0.000876
2619	0.622471346	9.70E-05	0.000877
5084	1.471707182	9.71E-05	0.000877
19169	0.688262961	9.74E-05	0.000879
3508	1.537250616	9.75E-05	0.00088
584	0.582569412	9.80E-05	0.000884
1835	1.515618165	9.85E-05	0.000888
10852	0.707649794	9.88E-05	0.000889

2410	0.68919745	9.89E-05	0.00089
4257	1.477697965	9.91E-05	0.000891
5085	1.471846166	9.94E-05	0.000893
7337	1.48353637	9.95E-05	0.000893
5178	1.459774578	0.0001	0.0009
11786	0.703574877	0.0001	0.000901
7670	1.478578128	0.000101	0.000901
132156	0.659987814	0.000101	0.000901
9412	0.669599991	0.000101	0.000903
17187	1.509619763	0.000102	0.000915
26962	1.423002953	0.000102	0.000916
56	0.368226021	0.000103	0.000916
5992	0.651691652	0.000103	0.000921
4907	1.423471	0.000104	0.00093
4593	1.447083426	0.000105	0.000934
3602	0.659510646	0.000107	0.00095
340	0.577793049	0.000108	0.000962
5194	1.449285563	0.000108	0.000965
13793	1.398282337	0.000109	0.00097
404	1.890861664	0.000109	0.000972
9228	0.690483947	0.000111	0.000982
444	0.64174496	0.000112	0.000992
1975	1.433369357	0.000112	0.000994
2309	0.639099278	0.000112	0.000996
4270	1.443872359	0.000113	0.000998
2527	0.67514144	0.000114	0.001006
293	1.94023535	0.000114	0.001006
180	0.512817369	0.000114	0.00101
2938	1.45744927	0.000115	0.001017
30723	1.422693948	0.000116	0.001023
17260	1.419639461	0.000116	0.001027
9634	1.455748357	0.000116	0.001027
8512	1.436282367	0.000117	0.001028
1026	1.65538818	0.000117	0.001033
2002	0.681717221	0.000118	0.001037
3508	1.478132484	0.000118	0.001038
3304	0.649529696	0.00012	0.001056
21393	1.447108232	0.00012	0.001056
6187	1.444378303	0.000121	0.001061
35582	1.446201031	0.000123	0.001079
47364	1.424579918	0.000124	0.001085
985	0.658171466	0.000125	0.001091
35044	1.452216698	0.000125	0.001097
2804	1.503848291	0.000127	0.001116
11386	1.402260754	0.000128	0.001121
2987	1.524227104	0.000129	0.001127
22860	0.67199439	0.000129	0.001128
2945	0.695658839	0.000129	0.00113
2315	0.672325437	0.00013	0.001134
462193	0.70237767	0.000131	0.001143
3290	1.514850678	0.000131	0.001143
26821	1.435103508	0.000131	0.001144

101113	0.68863329	0.000132	0.001152
25266	0.697400858	0.000133	0.001157
8545	1.427169587	0.000133	0.001158
15158	1.435242158	0.000134	0.001161
9292	1.463775642	0.000134	0.001166
1019	0.615715205	0.000135	0.00117
66	4.477933628	0.000136	0.001176
4614	0.706837903	0.000136	0.001176
15832	0.668339035	0.000136	0.001182
15187	1.415150198	0.000137	0.001185
11499	1.439820088	0.000137	0.001189
21434	0.677273146	0.000138	0.001194
3818	0.701190678	0.000138	0.001194
779	1.769077295	0.000139	0.001198
10006	1.431550081	0.000139	0.001201
3864	0.717448159	0.000139	0.001201
769	1.653502402	0.000139	0.001202
1834	1.611204833	0.00014	0.001204
5011	0.706597311	0.000141	0.001211
9050	0.685428314	0.000141	0.001216
76	0.420287754	0.000143	0.001227
242111	0.694954986	0.000143	0.001228
318	1.778082472	0.000143	0.001228
6290	1.472437737	0.000143	0.001228
13358	0.709274814	0.000143	0.001228
5171	1.420528222	0.000144	0.001235
4598	0.698678964	0.000146	0.001247
6179	1.455923483	0.000147	0.001256
1270	0.577035779	0.000147	0.001261
1854	1.5822734	0.000148	0.001267
7535	0.704623697	0.000149	0.00127
1673	0.655836395	0.00015	0.001277
3670	0.691598145	0.00015	0.001278
3113	1.500880339	0.00015	0.001278
4275	0.67438239	0.00015	0.001279
2028	0.674820264	0.00015	0.001279
3188	1.477583834	0.000151	0.001282
2935	0.686793928	0.000151	0.001285
92	0.447842302	0.000151	0.001287
9726	1.382566368	0.000152	0.001296
816	1.740640726	0.000153	0.001296
1776	0.66871838	0.000153	0.001301
8464	1.42244302	0.000154	0.001309
69	0.369678648	0.000154	0.00131
160624	0.696191229	0.000155	0.001314
10266	1.415217161	0.000156	0.00132
17401	1.443851854	0.000157	0.001333
3038	1.506046709	0.000159	0.001342
1355	1.639171441	0.000159	0.001343
1730	1.461150725	0.000159	0.001343
3563	0.694269507	0.00016	0.001347
4510	0.684792763	0.00016	0.001348

812	0.646632286	0.000163	0.001371
34585	0.706123228	0.000163	0.001375
192	0.498748545	0.000163	0.001376
690	1.667808554	0.000163	0.001376
1147	1.625640837	0.000165	0.001387
14209	1.421035942	0.000166	0.001392
286	2.020078026	0.000166	0.001395
14574	0.665382651	0.000166	0.001397
795	0.60502074	0.000167	0.001398
30059	0.714320424	0.000167	0.001398
4139	0.676587293	0.000167	0.001398
2493	1.57889984	0.000167	0.001398
19259	1.423054962	0.000168	0.001403
1659	0.627249895	0.000169	0.001413
2042	1.541863472	0.000171	0.001425
3282	0.648645933	0.00017	0.001425
15532	0.676789864	0.000171	0.001427
335	0.528472022	0.000171	0.001431
3360	1.459690225	0.000172	0.001432
10566	1.417425676	0.000172	0.001435
2530	0.657796925	0.000172	0.001435
8422	1.394113066	0.000174	0.001446
22291	1.42874093	0.000175	0.001455
230	0.509637663	0.000175	0.001455
23406	0.696841051	0.000176	0.001463
15677	0.682398186	0.000176	0.001464
2576	0.71167938	0.000177	0.00147
8023	1.420257446	0.000179	0.001485
13395	1.433677987	0.000179	0.001488
8429	1.464235067	0.00018	0.001491
15703	1.414067004	0.00018	0.001491
8836	1.407936781	0.00018	0.001491
900	0.595372702	0.000181	0.001495
5305	0.697109292	0.000182	0.001502
130407	0.704811567	0.000182	0.001505
162	0.630358534	0.000183	0.001516
1710	1.406729805	0.000184	0.001519
5833	0.7344978	0.000184	0.001521
807	1.716609794	0.000185	0.001522
3315	0.69448829	0.000186	0.001531
1030	0.648090736	0.000186	0.001532
520	1.693763772	0.000189	0.001551
35	0.332092711	0.000189	0.001551
2855	0.698611657	0.000189	0.001558
3605	0.670447367	0.00019	0.001565
79314	0.716267576	0.000191	0.001568
748	1.810907643	0.000191	0.00157
465	1.933885999	0.000193	0.001583
245	2.151124119	0.000194	0.001587
118	0.527597461	0.000197	0.001611
15576	0.714696549	0.000197	0.001612
520	0.564255607	0.000197	0.001613

2169	0.650769999	0.000198	0.001614
342	0.511426431	0.000198	0.001614
1097	0.673317859	0.000197	0.001614
1719	0.638947943	0.000198	0.001615
5082	1.455382417	0.000198	0.001615
6345	1.430455127	0.000198	0.001615
2421	1.48544129	0.000198	0.001616
289	2.136333904	0.000201	0.001639
38869	0.694965936	0.000202	0.001643
5318	1.445240168	0.000204	0.001657
3258	0.70395022	0.000205	0.001668
6537	1.436262874	0.000206	0.001671
2459	0.760749674	0.000206	0.001674
3119	0.69897571	0.000206	0.001675
32869	1.483290781	0.000207	0.001677
12005	0.660272816	0.000209	0.001697
2046	0.724797044	0.000209	0.001697
12005	1.459763702	0.000214	0.001731
680	0.591759777	0.000215	0.00174
12632	0.700151475	0.000215	0.001741
5160	1.454484593	0.000216	0.001748
26954	0.706668878	0.000217	0.001752
2568	1.620351748	0.000218	0.001757
5270	0.674796381	0.000218	0.001762
4334	1.458176052	0.000219	0.001763
21814	0.721578579	0.000219	0.001765
1258	1.530859738	0.00022	0.001775
2390	0.695841162	0.000221	0.001778
9703	0.711816394	0.000221	0.001778
563	1.679337978	0.000221	0.001778
6557	1.428711868	0.000223	0.001791
920	1.638815603	0.000223	0.001793
3247	1.400349265	0.000224	0.001795
187	0.564487351	0.000224	0.001795
2837	1.458103417	0.000224	0.001798
3198	0.696671623	0.000224	0.001798
2176	1.527475457	0.000226	0.001807
9370	0.703659802	0.000226	0.001807
30	0.301794425	0.000227	0.001818
338939	0.727957054	0.000228	0.001825
113971	0.719741512	0.000231	0.00185
12730	1.401257805	0.000233	0.001859
3104	0.707797762	0.000233	0.001859
4245	1.46760282	0.000233	0.001862
2708	1.48634682	0.000235	0.001874
8483	1.403307016	0.000236	0.001882
6890	0.664752031	0.000236	0.001882
10369	0.658937731	0.000238	0.001895
8679	1.4047839	0.00024	0.001906
328	1.911017017	0.00024	0.001907
4563	0.710451854	0.000241	0.001915
4334	0.720092417	0.000242	0.001926



6012	1.421098925	0.000245	0.001942
4813	1.426229501	0.000245	0.001942
5474	0.73982857	0.000245	0.001943
227	0.560047157	0.000247	0.001953
3804	0.733576296	0.000247	0.001953
5612	1.441220487	0.000248	0.001962
375	0.628815661	0.000249	0.001972
144	2.147973653	0.00025	0.001978
10091	1.476028141	0.000251	0.00198
7831	0.723455454	0.000251	0.001981
29489	0.709544367	0.000252	0.001986
1212	0.680579343	0.000257	0.002027
6167	1.47217402	0.000257	0.002028
892	1.643881285	0.000259	0.002041
1505	0.681228222	0.000261	0.002055
9284	0.753934402	0.000261	0.002055
4884	0.707604503	0.000262	0.002065
3255	0.721353134	0.000263	0.002065
13794	1.426493913	0.000264	0.002077
1807	1.690755886	0.000264	0.002077
4970	0.678467131	0.000267	0.002095
6049	0.713010467	0.000267	0.002096
5029	0.684991895	0.000269	0.002107
5683	1.402290798	0.000269	0.002111
10479	1.409413186	0.000271	0.002121
6582	0.743705295	0.000272	0.002128
22180	1.38945508	0.000272	0.002129
3206	1.456229009	0.000273	0.002132
20316	0.730083812	0.000274	0.002142
11185	0.699277696	0.000275	0.002145
1685	1.457240684	0.000276	0.002154
42	7.371122696	0.000277	0.002163
863	0.630361924	0.000278	0.002163
849	1.653024092	0.000277	0.002163
1915	0.699363664	0.000278	0.002167
3880	0.628517274	0.000278	0.002167
1488	0.639955439	0.000279	0.002171
6667	1.461663152	0.00028	0.002178
14690	1.384370499	0.00028	0.002178
2653	1.485438077	0.000281	0.002185
20787	1.423363758	0.000282	0.002188
43176	1.457778552	0.000282	0.002189
21518	0.691852685	0.000282	0.00219
218	0.590534985	0.000284	0.0022
866	0.662582063	0.000285	0.002208
3365	1.398165315	0.000286	0.002217
24561	0.704575184	0.000287	0.002223
4170	0.707953384	0.00029	0.002239
7154	0.725580374	0.00029	0.002243
33442	1.413036463	0.000291	0.002245
24470	1.400679759	0.000291	0.002249
1914	0.649385465	0.000292	0.002256

6343	0.712094577	0.000293	0.002256
8899	0.724161223	0.000293	0.002256
18549	1.4012168	0.000294	0.002263
1081	1.639295309	0.000295	0.002273
5583	0.736039923	0.000295	0.002273
2871	0.706361601	0.000296	0.002274
11176	1.3902512	0.000298	0.002289
2572	1.469659471	0.000299	0.002297
16036	1.421248313	0.000299	0.002299
2948	1.438943308	0.0003	0.002299
7620	1.358590799	0.0003	0.0023
4115	1.470415805	0.000301	0.002303
5491	1.401031898	0.0003	0.002303
7272	0.698443697	0.000301	0.002306
252	0.579130091	0.000302	0.002314
1171	1.59698844	0.000306	0.002339
4852	1.417157152	0.000306	0.002342
11769	1.426213129	0.000307	0.002346
1747	1.581943394	0.000308	0.00235
10562	0.714979634	0.000308	0.00235
873	0.646578695	0.000309	0.002355
2284	1.429863807	0.000309	0.002359
3476	1.492633933	0.000311	0.002369
5280	0.608315165	0.000312	0.002375
540	1.787591867	0.000313	0.002385
1231	1.627853806	0.000314	0.002386
1265	1.586803551	0.000314	0.002389
2270	1.436755635	0.000316	0.002401
11233	0.718452295	0.000316	0.002403
1883	0.696013597	0.000317	0.002408
59	3.577001961	0.000321	0.002434
3063	0.655703294	0.000324	0.002458
1491	0.646109212	0.00033	0.002497
702	0.659269301	0.00033	0.0025
4549	1.413386367	0.000331	0.002509
154	0.497683114	0.000334	0.002524
24552	1.415008244	0.000335	0.002534
2024	1.490794922	0.000335	0.002535
24003	1.395421024	0.000336	0.002536
178	0.566617718	0.000337	0.002547
3685	1.475575362	0.000338	0.002552
9181	1.376547324	0.00034	0.002564
1887	0.694524042	0.000341	0.002569
39928	1.408885097	0.000344	0.00259
1784	1.538812338	0.000345	0.002598
129729	1.351815767	0.000349	0.002625
1148	1.496615904	0.000352	0.002646
7608	0.727030615	0.000353	0.002656
1549	0.661345829	0.000354	0.002658
124	0.53457017	0.000354	0.002658
1291	0.65975122	0.000354	0.002661
19596	0.726032872	0.000355	0.002662

30392	1.389838357	0.000356	0.002671
7942	0.713006732	0.000359	0.00269
174065	0.720460529	0.000359	0.002692
6150	0.731243389	0.00036	0.002696
8892	1.39327574	0.000361	0.002699
1139	1.644546443	0.000361	0.002699
9611	1.425920757	0.000364	0.002717
15657	0.718801343	0.000364	0.002718
2698	1.456657828	0.000367	0.002739
3540	0.711129511	0.000368	0.002743
3938	1.426121965	0.000373	0.00278
1074	0.629641157	0.000375	0.002799
1172	0.662469232	0.000376	0.002799
3193	0.711425348	0.000376	0.002799
1076	0.634914279	0.000377	0.002808
2248	1.527811926	0.000381	0.002831
42270	0.719313129	0.000382	0.002839
6623	0.741413875	0.000386	0.002865
5150	1.424039358	0.000387	0.002876
14583	1.368266683	0.000387	0.002876
689	0.686386509	0.000391	0.002901
6787	1.39481556	0.000395	0.002928
2308	0.694433297	0.000397	0.002939
15819	0.754402423	0.0004	0.00296
5436	0.695669382	0.0004	0.00296
3398	1.443468065	0.0004	0.00296
3758	0.684416837	0.000402	0.00297
9772	0.698942219	0.000402	0.00297
19644	0.748156143	0.000402	0.002972
6990	1.377627547	0.000404	0.002983
3404	1.436668378	0.000404	0.002984
1090	0.62682055	0.000405	0.002988
1418	0.674421599	0.000406	0.002988
1051	0.657697275	0.000405	0.002988
57309	1.438552027	0.000407	0.002999
4359	1.411302072	0.000407	0.002999
7753	0.737715845	0.000408	0.002999
9964	0.681828288	0.000409	0.003011
1218	1.626514578	0.000411	0.003017
3928	0.725370152	0.000412	0.003029
788	1.59414751	0.000413	0.003034
1955	1.551066371	0.000415	0.003044
708	1.645359397	0.000415	0.003045
18327	0.731800536	0.000416	0.003049
564	1.800932152	0.000417	0.003055
704	0.687002794	0.000418	0.003057
1844	0.714992348	0.000419	0.003067
2817	1.45437182	0.00042	0.003074
1448	0.726008037	0.000421	0.003075
95	0.39073248	0.000421	0.003075
6296	0.726477893	0.000423	0.00309
42291	1.395413363	0.000424	0.003093

6 Inf		0.000426	0.003106
10515	0.698868268	0.000431	0.00314
37894	1.401993549	0.000436	0.003173
1380447	0.773168163	0.000436	0.003173
10555	1.405033983	0.000436	0.003173
53887	1.430687117	0.000445	0.003238
1429	0.68993734	0.000445	0.003238
10020	0.726777127	0.000447	0.003251
663	0.655512709	0.000448	0.003252
3603	1.447779934	0.00045	0.00327
10944	0.731829021	0.000455	0.003301
1942	1.472939509	0.000458	0.003319
58067	0.711538535	0.00046	0.003336
1599	0.670820742	0.000463	0.003351
14873	1.384187858	0.000464	0.003362
5322	1.425202217	0.000464	0.003362
23285	0.718441747	0.000468	0.003388
7307	0.740581219	0.000469	0.003392
814	1.55650963	0.000469	0.003392
130	0.600674609	0.000471	0.003403
6564	1.378780994	0.000474	0.00342
13117	1.392273888	0.000475	0.003429
915	1.570834883	0.000477	0.003439
10584	1.430517942	0.000477	0.003439
971	1.59666001	0.00048	0.003456
2051	0.7058975	0.00048	0.003456
1181	1.551648753	0.00048	0.003458
48	0.434615207	0.000483	0.003472
4451	0.703912472	0.000483	0.003476
1426	0.698319134	0.000485	0.003484
8501	1.394319682	0.000487	0.003501
1185	1.56344792	0.000489	0.003507
4332	1.409794685	0.000489	0.003509
32719	0.728270526	0.000489	0.003509
32044	1.390027602	0.000489	0.003509
3122	1.400064889	0.00049	0.003509
90943	1.425398165	0.000491	0.003519
17504	0.722069437	0.000493	0.00353
9973	1.438760981	0.000497	0.003552
1307	1.576769788	0.000497	0.003552
1329	0.716424206	0.000497	0.003553
637	0.578139616	0.000497	0.003553
4423	0.711248732	0.000499	0.00356
83389	1.373980632	0.000504	0.003593
9506	1.41743868	0.000506	0.003606
2513	1.44542737	0.000506	0.003606
3939	1.324682054	0.000508	0.003615
12022	0.734128526	0.000508	0.003615
1737	0.707161785	0.000508	0.003616
22692	1.405930284	0.00051	0.003627
5342	0.743795867	0.00051	0.003629
523	1.854437961	0.000512	0.003639

2558	1.482377536	0.000513	0.003641
13415	1.379440418	0.000514	0.003651
1810	1.511690999	0.000515	0.003657
19918	0.70779689	0.000517	0.003666
1181	0.613792244	0.000518	0.003672
10	0.309174384	0.000519	0.003676
878275	0.747745443	0.00052	0.003679
14759	0.722344724	0.00052	0.00368
2294	0.638555803	0.00052	0.003681
4875	1.419796049	0.000521	0.003683
3703	0.70980528	0.000521	0.003684
4029	0.71351093	0.000523	0.003694
48109	0.707570237	0.000524	0.003703
236	0.493996217	0.000525	0.003703
1848	0.684914045	0.000525	0.003703
2202	0.635477213	0.000525	0.003703
2180	0.708414255	0.000531	0.003745
12516	1.385305087	0.000535	0.003766
2138	1.465178416	0.000538	0.003785
5658	0.726422942	0.000538	0.003787
17866	0.736741286	0.000541	0.003803
2578	1.476980825	0.000543	0.003819
2442	0.679541119	0.000544	0.003821
41898	1.407381113	0.000547	0.003837
12695	1.380278851	0.000548	0.003847
21710	1.434867648	0.000549	0.003849
17	10.56108416	0.000549	0.003849
3155	0.726014182	0.000549	0.003849
1151	0.650403123	0.000553	0.00387
7929	0.721816645	0.000554	0.003878
4555	1.400821142	0.000556	0.003887
30	0.340288803	0.00056	0.003915
10927	0.718103697	0.000561	0.003919
3858	1.464762194	0.000561	0.003921
6183	1.441615789	0.000565	0.003943
1644	0.629492361	0.000565	0.003945
10826	0.756535006	0.000566	0.003947
764	1.638730809	0.000574	0.003997
25390	1.438663786	0.000574	0.003997
1790	0.681389236	0.000578	0.004028
8707	0.77502002	0.000579	0.004029
3777	0.738455846	0.000581	0.004041
20919	0.725319918	0.000581	0.004041
1905	0.693641336	0.000581	0.004042
2542	1.459025494	0.000582	0.004043
1420	1.524607989	0.00059	0.004099
2753	0.716465101	0.000592	0.004112
0	0	0.000597	0.004145
3422	0.708250695	0.000601	0.004166
10476	0.732624315	0.000603	0.004178
1548	0.641286383	0.000605	0.004189
18696	1.420195035	0.000606	0.004193

2370	1.389183169	0.000606	0.004196
2738	1.439646219	0.00061	0.004222
1532	1.538218259	0.000616	0.004257
3108	1.415848099	0.000621	0.004291
31566	1.413137914	0.000623	0.004306
28822	1.372368357	0.000628	0.004335
2053	0.666724651	0.000632	0.004358
1704	1.436289836	0.000634	0.004374
18767	0.738437467	0.000637	0.004393
2464	1.484339819	0.000638	0.004399
3365	0.727153191	0.00064	0.004403
4194	1.432759645	0.000639	0.004403
2891	1.476791245	0.000641	0.004407
1043	0.663687898	0.000642	0.004417
17682	0.727965416	0.000645	0.004434
3858	0.712398599	0.000645	0.004434
9951	0.739955048	0.000652	0.004475
8915	0.757596265	0.000652	0.004475
14503	1.401353111	0.000653	0.004478
5069	1.348509909	0.000654	0.004483
10926	1.362999746	0.000654	0.004484
18920	1.348076422	0.000655	0.004486
4062	1.444700863	0.000656	0.004489
7054	0.737049528	0.000656	0.004489
930	0.645941575	0.000656	0.004489
9690	1.38722461	0.000658	0.004497
8918	0.728727996	0.000662	0.004523
65731	1.411681647	0.000664	0.004534
1052	0.669157191	0.000666	0.004549
1374	1.552057235	0.000669	0.004567
981	1.58724596	0.000671	0.004572
34697	1.432673504	0.000671	0.004572
2957	0.729919995	0.000677	0.004615
2040	1.47527256	0.000679	0.004622
55904	1.437781272	0.000679	0.004622
5425	1.381069775	0.000686	0.004667
19947	1.36365102	0.000687	0.00467
4150	1.435048505	0.000689	0.004682
9620	1.411464759	0.000689	0.004682
2066	1.459113581	0.000691	0.004691
643	1.637688612	0.000692	0.004698
546	1.743354997	0.000693	0.004699
3499	0.666101588	0.000695	0.004713
3385	1.37433029	0.000699	0.00474
31314	0.73616179	0.000701	0.004746
15029	0.745495994	0.000701	0.004747
3486	0.70279949	0.000703	0.004754
16699	1.362168431	0.000703	0.004754
7149	1.393517708	0.000703	0.004754
398	0.5711937	0.000704	0.00476
31014	1.381944047	0.000708	0.004783
751	1.687950756	0.000709	0.004787

4004	1.439387568	0.000711	0.004798
21	0.309451585	0.000712	0.004802
7191	1.371129226	0.000713	0.00481
3943	0.752470944	0.000716	0.004822
1735	0.706133212	0.000716	0.004825
176	0.540434316	0.000717	0.004825
26879	1.400640081	0.000719	0.004834
2311	0.711464311	0.00072	0.004839
8289	1.410084096	0.000722	0.004852
7217	0.665909527	0.000723	0.004861
4221	0.711675936	0.000726	0.004877
1269	1.572536494	0.000728	0.004889
1144	0.739286509	0.00073	0.004901
487	0.649344605	0.000734	0.004919
16611	1.340829414	0.000746	0.004999
338	1.909474561	0.000746	0.005
14636	1.371103984	0.000749	0.005015
103796	0.712682227	0.000752	0.005031
24903	1.370883068	0.000754	0.005045
1589	0.640945668	0.000758	0.005067
3547	1.389476348	0.00076	0.005076
8464	1.373048546	0.000762	0.005088
3651	0.735072471	0.000763	0.005097
351	1.665007363	0.000766	0.005111
17546	1.376725153	0.000769	0.005127
2619	1.505184973	0.000776	0.005172
329	0.578339309	0.000779	0.00519
644	1.620314071	0.00078	0.005195
1681	1.390893142	0.000781	0.005202
1421	1.516060113	0.000782	0.005205
5817	1.382614952	0.000783	0.005209
2671	0.722150736	0.000784	0.005216
153	2.038855003	0.000788	0.005236
276	0.567974595	0.000788	0.005236
3704	0.703236484	0.00079	0.005244
2141	0.725464736	0.000791	0.005249
16	10.30926075	0.000794	0.005265
1351	1.51149738	0.000795	0.005269
2559	1.438352832	0.000797	0.005283
23546	1.407384565	0.0008	0.005295
3094	1.412452359	0.000802	0.005304
1410	1.499328001	0.000802	0.005304
25344	0.72832839	0.000803	0.005309
10	0.26254737	0.000807	0.005336
13413	1.362145191	0.000809	0.005346
19	0.314529936	0.000812	0.00536
2706	1.431904831	0.000812	0.005361
4496	0.716509864	0.000813	0.005368
3332	1.429774605	0.000816	0.005384
3912	1.415840013	0.000818	0.005391
1116	0.669869671	0.000821	0.005408
1672	0.688631464	0.000825	0.005433

123	0.456722113	0.000826	0.005439
6081	1.35843144	0.000831	0.005465
1121	1.531647094	0.000831	0.005465
3460	0.718421181	0.000832	0.00547
1462	0.724535079	0.000834	0.005479
1747	0.730888563	0.000837	0.005497
76814	1.370800601	0.000838	0.0055
1319	1.543576517	0.00084	0.005509
3884	1.419208123	0.000842	0.005519
1774	0.683288274	0.000845	0.005537
8850	1.387123782	0.000845	0.005539
18610	1.318532945	0.00085	0.005567
2943	0.705049326	0.000859	0.005624
51895	1.366726711	0.000859	0.005624
10241	0.743372643	0.000861	0.005634
7380	1.369058871	0.000862	0.005638
683	1.57373917	0.000871	0.005688
476	0.580764267	0.000873	0.005701
5553	0.733934918	0.000876	0.005717
286	1.864657179	0.000878	0.00573
3983	1.303922592	0.000881	0.005745
20438	1.340235024	0.000882	0.005747
2974	1.343788026	0.000883	0.005751
7774	1.307716575	0.000887	0.005774
8	0.358078978	0.000888	0.005783
20271	0.719756922	0.000895	0.005823
1126	0.694972435	0.0009	0.005852
7749	1.380793998	0.000901	0.005855
93646	0.740132877	0.000912	0.005928
5100	0.728155623	0.000914	0.005935
2334	1.434736193	0.000915	0.005939
4818	1.373417905	0.000915	0.005939
27	0.390071232	0.000917	0.00595
9668	1.317062337	0.000926	0.006
5174	1.381906342	0.000928	0.00601
378	1.754829153	0.000932	0.006039
593	0.625150189	0.000933	0.006039
2307	1.487797327	0.000936	0.006055
3488	1.372118404	0.000938	0.006065
648	1.805966199	0.000947	0.006125
67069	0.767584289	0.000954	0.006166
3172	0.721948268	0.000955	0.00617
43404	1.355455085	0.00096	0.0062
23737	0.737458078	0.000963	0.006213
3908	1.361057418	0.000964	0.006215
46958	0.731295337	0.000964	0.006215
446	1.303600174	0.000964	0.006215
1033	1.489906705	0.000968	0.006235
4840	0.73291632	0.000969	0.006239
949	0.698218579	0.000972	0.006255
2088	1.419455483	0.000974	0.006264
10294	1.320707439	0.000987	0.006348



3507	0.715035164	0.000988	0.00635
374	0.72469717	0.000992	0.006373
1062	0.719196468	0.000993	0.006378
1726	1.457799453	0.000996	0.006392
3199	0.693399465	0.000999	0.00641
1468	0.64339722	0.001002	0.006426
582	0.652574836	0.001003	0.006429
1862	0.716058483	0.001008	0.006454
37254	1.332638086	0.001013	0.006484
451	1.779096508	0.001014	0.006488
1964	1.527794127	0.001015	0.00649
6070	1.342715507	0.001016	0.006494
1931	1.446629225	0.001017	0.006497
3442	1.430874862	0.001027	0.006558
7845	1.365766441	0.001028	0.006564
1211	1.503031395	0.00103	0.006571
164	0.661582835	0.001031	0.00658
8038	0.745071598	0.001035	0.006602
649	0.678904748	0.001037	0.006606
6566	1.425732122	0.001043	0.006648
7199	1.388153722	0.00105	0.006688
5297	0.751787703	0.001051	0.006688
25401	0.71967749	0.001052	0.006692
63619	1.306915805	0.001053	0.006699
1280	0.696018364	0.001054	0.006701
5896	1.296871366	0.001055	0.006703
1698	1.53397699	0.001057	0.006714
5321	1.369130336	0.001059	0.006724
11972	1.387215485	0.001061	0.006734
2129	0.691565689	0.001068	0.006776
3022	1.418211663	0.001073	0.006801
1856	1.467179001	0.001073	0.006801
10101	0.732563516	0.001079	0.006835
567	0.71906151	0.001081	0.006843
2792	1.455155897	0.001081	0.006843
1827	1.436901652	0.001084	0.00685
169	2.206404731	0.001083	0.00685
4329	0.669171394	0.001084	0.00685
5293	0.74861889	0.001092	0.006897
1242	1.457116192	0.001097	0.006926
6153	1.406354794	0.001101	0.006949
75345	1.346750578	0.001106	0.006978
1528	0.678055142	0.001109	0.00699
5544	0.727378459	0.00111	0.006997
9863	0.729596289	0.001113	0.007009
7186	0.721258748	0.001117	0.007029
19494	1.388535345	0.001117	0.007029
5760	1.373587186	0.001117	0.007029
1147	1.505938367	0.001118	0.00703
1914	1.466051898	0.001119	0.00703
803	1.646467084	0.001119	0.00703
7952	1.414650263	0.001122	0.007039

2622	0.708952176	0.001121	0.007039
18480	1.346634555	0.001122	0.007039
3134	0.725845195	0.001123	0.007041
4146	0.756718555	0.001126	0.007055
3929	1.353200061	0.001126	0.007055
52	3.570705511	0.001126	0.007055
3343	1.469870818	0.001128	0.007059
2667	0.710483296	0.00113	0.007069
3619	0.721705001	0.00113	0.007069
264	0.542762923	0.001133	0.007085
5778	1.390095595	0.001134	0.007087
2636	0.732293367	0.001135	0.007088
10180	1.386527032	0.001139	0.007105
2278	1.404550371	0.001139	0.007105
17620	1.354122769	0.001138	0.007105
453	1.768149478	0.00115	0.00717
6806	1.372930868	0.001158	0.007216
75981	1.400564674	0.001159	0.007218
1580	1.490691965	0.00116	0.007225
1141	1.490666802	0.001165	0.007254
516	1.539432812	0.001171	0.007288
7371	1.375930133	0.001174	0.007298
194	1.740536449	0.001176	0.00731
1325	0.731031227	0.001177	0.007312
1269	1.5580461	0.001177	0.007312
6365	1.410938933	0.00118	0.007325
11233	1.36770579	0.001182	0.007333
6857	0.757738995	0.00119	0.007378
3627	1.351984895	0.001194	0.007397
4253	1.381038221	0.001193	0.007397
76042	1.399433337	0.001196	0.007406
612	0.582345583	0.001201	0.007434
3422	1.41813175	0.001208	0.007478
3680	0.719202886	0.001211	0.00749
5657	0.756576027	0.001214	0.0075
335	1.891845025	0.001213	0.0075
3292	1.373957561	0.001215	0.007506
3013	0.725119835	0.001219	0.007523
153	2.452191015	0.00122	0.007523
14781	0.725240272	0.001219	0.007523
545	0.657307293	0.00122	0.007523
3696	1.349963788	0.001221	0.007526
499	0.6741133	0.001222	0.007528
1556	1.443461965	0.001226	0.007547
7339	0.676009132	0.001229	0.007559
20806	1.341628936	0.001228	0.007559
138431	0.726061585	0.001229	0.007559
6009	1.380054307	0.001236	0.007589
1717	0.677408768	0.001235	0.007589
1033	1.51641992	0.001236	0.007589
8529	1.357037545	0.001236	0.007589
672	1.721390428	0.001237	0.00759

3884	1.355318637	0.001242	0.007618
4228	0.74344791	0.001246	0.007637
2859	0.643219012	0.001247	0.007641
15149	1.327100124	0.001252	0.007673
88	0.467217618	0.001256	0.00769
390	0.601486155	0.001261	0.00772
1134	1.678675212	0.001265	0.007737
950	1.568060841	0.001266	0.007743
8064	0.778117035	0.001267	0.007745
6083	0.732564669	0.001268	0.00775
1935	0.714645734	0.001274	0.007778
3350	1.376274079	0.001275	0.00778
3609	1.395829541	0.001275	0.00778
1944	1.442330856	0.001278	0.007795
8907	1.365680459	0.001279	0.0078
197	0.563603969	0.001284	0.007826
19868	1.32927944	0.001287	0.00784
14344	1.363954379	0.00129	0.007853
8143	0.744094886	0.00129	0.007853
3084	0.743750644	0.001292	0.007858
2534	0.73232015	0.001298	0.007891
7085	1.347538547	0.001306	0.007937
155	2.352058655	0.001317	0.008004
1777	0.681848825	0.001323	0.008032
5349	0.729157107	0.001324	0.00804
492	1.497710405	0.00133	0.008073
3128	1.412971799	0.001335	0.0081
4644	0.737950617	0.00134	0.008125
366	0.623616063	0.001343	0.00814
1372	0.726215003	0.001345	0.00815
4169	1.408463984	0.001351	0.008179
46640	0.722219588	0.001357	0.008214
22710	1.368354424	0.001359	0.008223
2414	0.67939931	0.001369	0.008275
928	0.69276086	0.001372	0.008291
32928	1.343561552	0.001375	0.008309
3019	0.734991406	0.00138	0.008337
9618	0.726428402	0.001385	0.008362
10790	1.312612605	0.001387	0.008367
15748	1.347539765	0.00139	0.008385
9688	0.767701328	0.001394	0.008404
12589	0.705937005	0.001396	0.008411
2806	0.726588994	0.001399	0.008425
10489	1.362720885	0.001401	0.008431
1169	1.384307675	0.001401	0.008431
58999	1.38974569	0.001404	0.008446
16282	0.755013586	0.001405	0.008449
17514	0.713546336	0.00141	0.008474
2852	1.430619729	0.001413	0.008491
2480	1.412935241	0.001416	0.008501
16375	0.728487275	0.001423	0.008545
1250	0.708168451	0.001427	0.008561

1282	0.711182845	0.001429	0.008568
454	1.665135729	0.001435	0.008601
5126	1.372312762	0.001437	0.008609
1105	1.45139718	0.001444	0.008647
8782	0.751993933	0.001447	0.008665
3242	1.389898498	0.001456	0.008717
225	0.523401005	0.001459	0.008731
2440	0.730426614	0.00146	0.008732
2845	0.761983326	0.001465	0.008758
1212	0.711127492	0.001479	0.008834
1106	0.621814259	0.001479	0.008834
25841	0.710551921	0.001489	0.008888
63	3.04282052	0.001499	0.008947
2397	0.72925204	0.0015	0.008948
8937	0.709608469	0.001502	0.008957
25808	0.772289487	0.001505	0.008966
6847	0.750088164	0.001517	0.009035
1824	1.377744313	0.001518	0.009041
6289	1.357453942	0.001522	0.00906
725	0.650759821	0.001524	0.009066
6486	0.745537661	0.001527	0.009076
12770	0.766559768	0.001527	0.009076
8783	0.747845058	0.001529	0.009083
4926	1.353542526	0.001535	0.009117
964	0.630410906	0.001538	0.009129
7098	1.431038574	0.001538	0.009129
18096	1.383623629	0.001544	0.00916
1905	0.723849505	0.001561	0.009258
3375	0.729239408	0.001564	0.009267
3545	1.44134786	0.001567	0.009283
7254	1.351534277	0.001571	0.009306
35818	1.307944504	0.001575	0.009322
2761	1.389346238	0.001577	0.009328
1415	1.428998149	0.001577	0.009328
4045	0.763453039	0.001584	0.009365
355	1.802764044	0.001585	0.009366
7160	0.756487567	0.001588	0.009383
6336	1.342016064	0.001605	0.009472
1360	0.655510871	0.001606	0.009472
30891	0.733235935	0.001605	0.009472
8669	0.727400427	0.001609	0.009486
44655	0.733483615	0.001609	0.009486
7846	1.392579769	0.001613	0.009503
3129	1.386769129	0.001621	0.009547
729	0.671573361	0.001624	0.009561
257	1.54233411	0.001627	0.009572
280	0.632552532	0.001628	0.009579
789	0.663574774	0.00163	0.009585
2193	1.511758199	0.001633	0.009599
13069	1.334681183	0.001636	0.00961
42441	0.736347171	0.001649	0.009681
498	0.710364883	0.001651	0.009691

501	0.590959318	0.001653	0.009697
4499	1.19462407	0.001657	0.009717
14339	0.697360946	0.001662	0.009746
2886	0.692981127	0.001664	0.009752
3609	1.398116562	0.001681	0.009845
1196	1.497588147	0.001692	0.009903
2051	1.443410256	0.001692	0.009903
3400	1.374225134	0.001699	0.00994
100064	0.757926163	0.001704	0.009959
7890	1.366150855	0.001703	0.009959
301	1.783445215	0.001711	0.009991
299	1.729496031	0.001711	0.009991
7340	0.767784245	0.001711	0.009992
1363	1.425965528	0.001717	0.009994
1307	1.473340129	0.001723	0.009995
3813	1.389211235	0.001729	0.009996

Row.names	Ethanol-1	Ethanol-2	Ethanol-3	VD-1
chr20:klf11a	2901	2929	3641	29800
chr6:cyp24a1	46543	37575	32535	232181
chr17:klf11b	1236	1550	2116	7249
chr2:igfbp1b	49620	43557	53242	175590
chr1:c3b	10541	11441	13215	3027
chr24:si-ch211-234	8327	7644	8965	2400
chr1:zgc-154142	18856	15218	17520	6021
chr15:elna	961	1022	1919	3384
chr16:zgc-92590	6277	4938	3980	1854
chr20:LOC798872	5284	4082	6893	12542
chr10:si-ch73-46j1f	3010	2990	3635	8150
chr15:LOC1000029	4347	4058	5446	1788
chr18:tat	34241	34896	41289	99608
chr6:opn1mw1	19783	26269	51407	12141
chr6:aldh1l1	19066	17382	19090	7881
chr8:fabp1b.1	4599	3902	6459	2024
chr12:habp2	2903	2505	2976	1011
chr15:a2ml	26363	23110	23288	11944
chr5:zgc-114041	603	541	509	1536
chr22:fbn2b	6561	6744	10509	16508
chr1:f7i	1158	980	1569	330
chr14:stc2	3076	2721	3015	1062
chr22:ahsg	7010	4637	5813	2716
chr16:zgc-161979	20069	21626	28110	11632
chr18:ces3	4324	3606	3929	1551
chr13:rn7sk	383	352	376	1474
chr12:slc16a12b	8485	7739	8615	19205
chr4:slc26a3	38	149	73	375
chr19:zgc-112992	777	706	1011	254
chr12:ankrd1b	13227	12880	13549	6798
chr13:mycl1a	1207	1277	1840	3226
chr1:fabp2	42645	38811	40321	21658
chr2:cyp7a1a	17394	14024	14135	7432
chr24:ezh2	1062	1171	1386	2994
chr11:opn1sw2	30185	32299	53848	18438
chr20:igfbp1a	29853	27781	43443	63785
chr6:hmg1b	3988	3951	4527	8851
chr14:zgc-154020	2419	11479	34080	6045
chr9:ugt1a5	6816	5656	6128	3097
chr20:cyp2ad2	8592	6963	7319	4322
chr14:masel3	1397	1710	1116	631
chr25:klf13	3109	2742	2797	6638
chr9:ugt1a1	11279	9221	10151	5390
chr4:adm2	706	731	791	1992
chr13:hells	766	697	897	2103
chr9:ugt1a2	6664	5489	6049	3109
chr4:opn1sw1	140166	160829	216181	84326
chr9:ugt1a7	7447	6320	6934	3593
chr6:zgc-113054	2125	2212	2679	5025
chr9:ugt1a6	6483	5327	5796	3012

chr17:col10a1	3771	5899	8420	5328
chr16:dpys	4136	3656	4587	1953
chr13:slc1a4	1910	1610	1864	3629
chr6:cish	14296	11955	12019	7712
chr9:ugt1a4	7059	5808	6288	3432
chr8:si-dkey-45m5.	465	500	812	1275
chr22:lpl	56232	52287	58503	28400
chr2:ebi3	661	701	1126	278
chr8:rh50	1937	1548	1849	982
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chr20:cx32.3	5837	5658	5519	3281
chr12:gip	723722	676680	838165	405916
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chr17:dnmt6	5916	5770	6977	11596
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chr3:socs1	3698	3437	4116	2176
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chr11:vgll4	200214	191495	253561	115647
chr1:zgc-136854	38	154	384	139
chr11:zgc-110377	5536	5019	4110	3325
chr19:zgc-110064	17751	17594	21370	12724
chr11:socs8	1816	1830	1815	899
chr6:pglyrp2	541	641	686	234
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chr3:mcm5	3654	3541	5720	8066
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chr2:itgb1bp3	12071	9324	9595	7573
chr7:agxt2l1	6808	5749	5884	3807
chr23:rybpa	3623	3510	4699	7038
chr2:sepp1b	6085	5094	3975	11069
chr1:c3c	20239	18961	16424	11838
chr13:pygl	8217	6875	7570	4907
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chr4:si-ch211-24011	1410	1077	1114	2606
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chr7:zgc-172079	6918	6998	8342	4285
chr9:zgc-110113	1430	1376	2140	3163
chr24:si-dkey-25o1	2306	3063	3666	1960
chr20:cx28.9	9271	8763	8649	5701
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chr5:pdzd3b	2457	2087	2678	1325
chr6:igfbp2a	6518	6200	7538	4324
chr12:aqp8a.2	6104	5465	6430	3877
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chr11:zgc-153102	2528	2357	2295	3928
chr3:zgc-172253	2916	2590	2860	1827
chr13:abcg8	2320	2514	3260	1510
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chr2:zgc-153913	2308	2044	2555	1493
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chr20:mep1b	8156	7303	8247	4919
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chr3:gcat	7578	7862	8347	5481
chr19:pkhd1l1	7290	8617	13243	13865
chr16:si-ch211-154	1404	1243	1600	2242
chr10:foxo1b	1175	983	1126	2084
chr18:dut	1787	1566	2433	3588
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chr23:slc34a2b	5840	4912	6518	7841
chr5:fbp1a	13554	12204	12856	8722
chr16:hamp1	723	811	580	1829
chr7:LOC570613	2558	2242	2459	1609
chr20:zgc-158463	176	268	487	100
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chr22:cfhl2	409	444	609	140



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Zv9_NA889:zgc-19	271	458	919	173
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chr8:upb1	2973	2939	2843	1873
chr25:zgc-101540	4935	4602	4103	3613
Zv9_NA889:rt	244	427	887	166
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Zv9_scaffold3460:zgc-194887	1283	1397	1549	798
chr25:cyp2x9	2607	2363	2340	1624
chr9:vil1l	30126	26318	33025	19592
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chr2:rpb2b	1343	1289	1226	1055
chr3:ezh1	9556	8778	9937	6485
chr1:ugt5b3	1737	1695	1719	977
chr10:fhl	1250	968	1262	2347
chr20:mycn	10971	10089	12475	18203
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chr16:col27a1a	1740	1869	2908	3094
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chr25:igf2b	5949	5430	5245	9711
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chr9:cbsb	21227	20440	21179	14343
chr13:plek2	861	733	672	1452
chr21:zgc-66125	1148	1092	1939	2403
chr7:zgc-162651	3172	3054	3722	5259
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chr19:crabp2b	1679	1817	2060	2805
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chr25:rlbp1b	16260	16101	15515	12941
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chr16:zgc-92763	2590	2663	2713	1997
chr12:pts	8891	8166	12363	6123
chr24:elovl2	1434	1073	1472	623
chr18:gnb5b	6549	7184	9401	5359
chr3:cyp3c4	1297	1204	1091	788
chr15:smc4	2299	2300	4006	4325
chr19:gnb3b	42608	44376	62280	30862
chr20:zgc-171525	8798	7966	12714	6128
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chr8:slc5a9	1265	1392	1673	801
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chr13:zgc-112210	547	507	572	304
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chr17:kif11	1283	1228	1854	2574
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chr10:zgc-110200	7183	7549	8302	5457
chr16:zgc-193613	186789	174862	198510	153579
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chr20:mep1a.2	10437	9212	9833	7410
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chr8:zgc-136909	1959	1652	2324	1181
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chr2:si-dkeyp-35b8	1457	1497	2081	2599
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chr6:acox1	8516	9203	9765	6447
chr16:hamp2	509	605	403	1292
chr5:si-ch211-89p1	178	210	235	102
chr8:amt	3952	3529	4353	2717
chr24:cyb5a	4915	4842	6010	3890
chr19:si-dkeyp-113	188952	179565	242967	363827
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chr16:mcm3	1549	1573	2207	3061

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chr20:serpina1l	40492	27965	32734	27651
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chr1:fgb	23980	21864	22422	18283
chr15:gdpd1	3193	3373	3213	2517
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chr14:ccna2	539	651	927	1375
chr12:rltgr	2287	2582	1828	1610
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chr2:mmp14b	6075	6858	7684	9042
chr6:rgn	3374	3346	3547	2524
chr5:zgc-64116	183	233	251	442
chr8:comta	2139	1870	2376	1359
chr25:lamb1a	10650	11099	16937	15910
chr10:ugt5d1	712	628	628	437
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chr14:zgc-136890	3703	3595	3593	2854
chr3:zgc-152911	607	1653	2262	1135
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chr15:bbc3	4919	4833	5560	7407
chr14:aurkb	772	854	1336	1631
chr16:gbp	17548	14599	19337	25505
chr22:mfap2	1865	2059	3901	2954
chr4:cd36	33400	27889	28444	23531
chr25:pparab	1270	1038	1424	789
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chr5:nos2a	60	283	833	74
chr24:abcd3a	14459	12949	14352	10848
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chr2:ncapd2	1689	1909	2743	3456
chr3:ldlr	18877	16119	19954	12459
chr5:noxa1	55	139	389	90
chr1:sfrp2	2146	2256	2187	3576
chr9:zgc-66484	3911	3051	3393	2768
chr14:gabra6a	1526	1701	2498	1254
chr21:zgc-136410	1422	1175	1232	948
chr5:zgc-65851	11669	9807	14037	17959
chr17:zgc-162909	584	575	721	1147
chr5:zgc-92661	124	156	189	330
chr5:aacs	3805	3649	3929	2897
chr18:ch25hl1.1	1733	2057	2304	1340
chr11:zgc-92474	9460	8624	11793	6784
chr2:zgc-73230	9305	8252	9157	13017
chr23:igfbp6b	1132	1079	1560	745
chr10:cldn5b	1317	1402	1732	2183
chr15:acad8	4268	4334	4655	3755

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chr21:rrm1	4221	4644	6324	7751
chr8:angptl7	3313	3293	4552	5316
chr2:grk7a	31222	31561	35140	23836
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chr16:icn2	13957	11642	8184	12944
chr2:fndc3ba	2832	2852	4381	4309
chr3:zgc-100868	13060	20696	50829	20938
chr8:sult1st2	1470	1219	1319	1021
chr9:rdh1	10645	7610	9831	7728
chr12:slc9a3r1	4768	4724	5421	3653
chr24:ctdspla	18631	16002	17000	26674
chr5:akr1a1a	393	304	350	215
chr5:ubb	18578	19165	20263	30146
chr19:tmem54	425	431	393	241
chr18:chka	18973	17716	16353	14889
chr1:f7	5083	3739	6178	3494
chr9:crygmxl1	126	140	142	354
chr13:acta1b	126470	142885	187171	118076
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chr22:shc2	2281	2161	2404	3480
chr4:zgc-162331	2815	3029	4462	2390
chr10:zgc-136871	3030	2839	2962	2228
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chr7:zgc-194993	466	340	687	623
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chr6:her6	1760	1873	2323	2912
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chr3:col1a1a	315631	331459	647514	463062
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chr4:wnt5b	1827	1921	3070	2639
chr13:gstal	12980	11224	11289	10400
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chr7:slc22a18	4658	4401	4918	3707
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chr20:matn3a	20398	20414	24301	38390
chr3:tmem56b	9202	8351	8821	6903
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chr25:cyb5r2	1443	1202	1341	1060
chr22:aspm	1454	1583	1788	2922
chr3:zgc-153036	3209	2326	3361	2339
chr9:fstl1b	3757	3842	5196	5499
chr1:fstl1a	1562	1363	1656	2122
chr11:uox	9713	8499	8239	7804
chr25:zgc-152941	258	313	446	629
chr1:smarca5	6009	6468	8042	10862
chr16:icn	37294	32639	30939	34901
chr7:fxr2	29762	30871	36171	23544
chr7:pnp5a	41063	42112	46227	66062
chr4:si-dkey-31f5.1	8661	7886	8314	5909
chr12:itgb3b	540	494	762	822
chr18:ilvbl	5262	5333	5759	4347
chr2:col11a1b	12146	12414	18583	19207
chr20:prg4	4238	3866	3756	5521
chr8:slc5a5	496	813	585	290
chr6:zgc-123190	335	306	312	693
chr1:capn9	2917	2543	3696	4612
chr20:cyp2p8	2737	2424	2436	1803
chr12:rbp4	125010	118707	142517	185355
chr25:aass	18693	19954	21302	14944
chr12:asah2	20141	17994	19239	13369
chr17:cdk1	456	448	707	1005
chr5:grk1b	3722	3692	4060	2913
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chr16:dsc1	294	219	415	589
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chr16:mms22l	1118	1032	1599	2063
chr18:wee1	1294	1343	1471	2315
chr21:sc5dl	373	377	387	613
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chr23:hmgb2l	11479	11027	17274	19186
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chr7:gcs hb	2761	2524	2457	2001
chr16:zgc-194131	21984	21410	30911	17558
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chr13:abcg5	2598	2743	3362	1879
chr10:mmp30	9463	10436	10845	7766
chr18:cd276	1079	1107	1563	1957
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chr9:si-dkey-69o16	6709	5736	5657	5315
chr7:haus3	143	154	188	305
chr8:si-ch211-133lf	4575	3932	3564	3156
chr2:slc1a8b	4862	4353	4283	3936
chr12:pde6c	76584	77680	81646	60085
chr3:cyp2k6	265	237	200	694
chr23:nr4a1	35353	24219	31202	27336
chr3:pold1	2291	2468	3393	3908
chr4:socs2	3978	3928	5416	3102
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chr22:rrbp1	10216	11123	14825	8632
chr25:anpep	14248	13799	15032	11475
chr20:cyp2n13	7979	6607	6427	5845
chr18:re1t	2325	1990	3174	3421
chr6:zgc-162180	47	68	177	26
chr19:atxn1a	5874	5772	8141	8421
chr16:rab13	571	546	513	1130
chr13:zgc-101129	1232	1335	1146	980
chr22:LOC563738	2695	2678	2825	2087
chr4:slc25a3a	3987	4715	6058	3877
chr13:jag1b	4286	3945	5648	5737

chr3:zgc-136820	4526	3938	4444	6418
chr10:zgc-56085	10756	11587	15564	9904
chr18:zgc-158671	1629	1577	2246	2965
chr19:kifc1	1166	1124	1770	2169
Zv9_NA897:tfr2	1547	1700	2123	2759
chr1:msxb	440	520	511	670
chr6:si-ch211-157f	4885	4687	6607	7566
chr9:rp42-pen	7100	5967	6782	9742
chr1:pdia2	12144	12276	9177	8450
chr4:chpt1	19182	16823	20567	13497
chr8:znf367	572	561	960	965
chr16:sox4b	19628	15973	25179	26137
chr17:zgc-92869	6564	5674	6334	5414
chr21:pgrmc1	4849	4411	5034	4024
chr4:dyrk2	9118	10728	11568	8523
chr5:si-ch211-278b	532	459	750	974
chr23:zgc-123207	1131	959	1181	773
chr6:nasp	2883	2813	3535	4484
chr19:eif2c3	801	778	956	1207
chr24:fen1	1054	1043	1069	1615
chr15:zgc-153112	1941	1867	2379	3334
chr3:zgc-110417	129	157	200	294
chr14:npas4	26838	25301	47541	25371

VD-2	VD-3	foldChange	pval	padj
21436	53723	11.83405232	1.32E-146	1.86E-142
155098	319821	6.342205479	7.00E-82	4.92E-78
5576	12095	5.459056407	7.97E-78	3.73E-74
177906	265078	4.515225786	7.57E-55	2.66E-51
3045	1293	0.22054844	1.12E-52	3.16E-49
2841	922	0.26146814	1.72E-41	4.04E-38
7733	1768	0.318117891	5.15E-33	1.03E-29
3598	4702	3.259949699	3.82E-32	6.72E-29
1172	1157	0.283095767	8.25E-32	1.29E-28
14992	13760	2.741360285	1.88E-29	2.65E-26
5510	10758	2.685753938	5.60E-29	7.15E-26
1731	513	0.306658132	7.95E-29	9.31E-26
86203	107363	2.816252997	1.88E-27	2.04E-24
12383	7658	0.35744283	3.34E-27	3.36E-24
6603	4618	0.360209331	1.79E-26	1.63E-23
1781	924	0.335311256	1.86E-26	1.63E-23
1041	198	0.281325963	5.30E-26	4.38E-23
9701	3410	0.356539776	1.02E-25	7.94E-23
1147	2489	3.300969579	3.80E-24	2.81E-21
16475	22233	2.500622744	6.22E-24	4.37E-21
294	130	0.215270999	1.66E-23	1.11E-20
1025	542	0.313364665	3.33E-23	2.13E-20
2439	1021	0.369876276	4.47E-23	2.73E-20
9121	5179	0.390108641	1.20E-22	7.00E-20
1929	587	0.362125666	2.33E-21	1.31E-18
314	1818	3.365451168	1.07E-20	5.77E-18
14914	19152	2.259174095	3.27E-20	1.70E-17
812	122	5.321134633	4.57E-20	2.29E-17
154	80	0.203281789	1.18E-19	5.70E-17
5663	3670	0.425190292	1.33E-19	6.23E-17
2513	4309	2.486972539	1.54E-19	7.01E-17
16118	9574	0.403623032	1.73E-19	7.60E-17
6036	5395	0.432671561	9.47E-19	4.04E-16
1808	3722	2.488745271	1.08E-18	4.48E-16
17508	11072	0.43242031	2.67E-18	1.07E-15
66129	87003	2.314076753	4.04E-18	1.58E-15
5774	10539	2.129240007	6.64E-18	2.52E-15
6471	85399	2.347858349	3.95E-17	1.46E-14
3295	1566	0.450137684	2.20E-16	7.94E-14
3574	2091	0.454838585	2.75E-16	9.67E-14
452	198	0.309471064	4.12E-16	1.41E-13
4000	6327	2.046831012	7.60E-16	2.54E-13
5648	2720	0.472171306	1.01E-15	3.32E-13
1749	1570	2.511027869	1.12E-15	3.57E-13
1200	2242	2.47483025	1.85E-15	5.80E-13
3341	1579	0.464480345	2.68E-15	8.20E-13
78609	53000	0.443364522	4.57E-15	1.37E-12
3813	1888	0.472781	4.73E-15	1.38E-12
3406	5279	2.063306345	6.56E-15	1.88E-12
3276	1560	0.469429204	7.70E-15	2.17E-12



15394	12660	2.045671719	1.27E-14	3.49E-12
2255	1157	0.460437847	2.59E-14	7.01E-12
2594	4442	2.091104273	2.83E-14	7.51E-12
5787	4474	0.488309581	3.42E-14	8.90E-12
3627	1745	0.483421125	4.53E-14	1.16E-11
1014	1932	2.560672913	5.25E-14	1.32E-11
27545	18810	0.471840276	5.46E-14	1.35E-11
277	130	0.293854831	6.28E-14	1.52E-11
690	280	0.37869277	7.93E-14	1.89E-11
4639	2581	0.499690999	1.77E-13	4.14E-11
2904	1720	0.48515111	2.04E-13	4.71E-11
393536	204792	0.473349732	2.33E-13	5.29E-11
4838	4992	2.051321393	3.24E-13	7.24E-11
13948	8143	0.498068294	3.49E-13	7.67E-11
8969	12614	1.881989255	6.21E-13	1.34E-10
3438	1736	0.501233903	6.36E-13	1.36E-10
1328	1565	0.470704315	8.32E-13	1.75E-10
94992	34587	0.483205187	1.24E-12	2.56E-10
45915	30526	0.482502693	1.35E-12	2.75E-10
4045	1540	0.503341309	1.53E-12	3.08E-10
130511	48375	0.484671335	2.51E-12	4.96E-10
79	1442	3.278759729	5.02E-12	9.80E-10
2359	1358	0.493461225	5.47E-12	1.05E-09
9389	6235	0.522659956	6.51E-12	1.24E-09
758	538	0.42009458	6.67E-12	1.25E-09
169	116	0.289587003	8.04E-12	1.49E-09
775	372	0.414406508	1.04E-11	1.90E-09
5394	8818	1.840302386	1.25E-11	2.25E-09
1637	1824	2.316154738	1.58E-11	2.82E-09
5034	3213	0.526707166	1.76E-11	3.10E-09
3709	1733	0.524760007	2.53E-11	4.39E-09
5409	7763	1.814913856	2.96E-11	5.08E-09
7471	6965	1.733265681	5.91E-11	1.00E-08
10059	6682	0.534031785	6.22E-11	1.03E-08
4154	2603	0.538134867	6.16E-11	1.03E-08
3350	1513	0.533373991	1.15E-10	1.87E-08
3381	5831	0.556764231	1.43E-10	2.31E-08
680	244	0.42253599	1.68E-10	2.68E-08
2460	1735	0.530568272	2.44E-10	3.86E-08
26668	16108	0.539362436	3.07E-10	4.74E-08
276	408	0.392684322	3.04E-10	4.74E-08
2016	2070	1.942263321	3.30E-10	5.04E-08
103062	67629	0.521624168	4.02E-10	5.97E-08
3786	3709	0.560074361	4.03E-10	5.97E-08
2307	3335	1.898540053	4.00E-10	5.97E-08
1198	1222	0.507204431	4.56E-10	6.68E-08
5415	3127	0.558964451	5.17E-10	7.49E-08
4462	2954	0.559292923	5.51E-10	7.78E-08
2869	3875	1.792042061	5.53E-10	7.78E-08
7616	5457	0.57214602	5.51E-10	7.78E-08
1524	2740	1.964368439	6.06E-10	8.43E-08

10	544	4.417564564	7.19E-10	9.91E-08
8853	6731	0.562000343	8.09E-10	1.10E-07
8232	7702	0.569170814	8.46E-10	1.14E-07
12969	14269	1.697792698	8.60E-10	1.15E-07
2342	1582	0.53897721	8.88E-10	1.18E-07
3038	1923	0.55825674	8.99E-10	1.18E-07
5705	8899	1.739257098	9.82E-10	1.28E-07
1247	856	0.501698933	1.26E-09	1.62E-07
3851	2703	0.566145839	1.30E-09	1.66E-07
3499	2253	0.562706633	1.54E-09	1.94E-07
2370	3397	1.86849834	1.78E-09	2.23E-07
3293	4722	1.752650537	1.89E-09	2.35E-07
1680	599	0.512675969	1.91E-09	2.36E-07
1526	944	0.522352903	2.66E-09	3.25E-07
65330	110761	1.784271001	2.75E-09	3.33E-07
7309	6034	0.571606734	3.00E-09	3.61E-07
6407	9530	1.700362903	3.13E-09	3.73E-07
9295	4700	0.575351151	3.79E-09	4.48E-07
650	226	0.441144909	3.96E-09	4.64E-07
1264	589	0.507513371	4.65E-09	5.40E-07
12299	18989	1.710003735	4.80E-09	5.53E-07
8517	10479	1.658353406	5.17E-09	5.90E-07
15515	20989	1.64593499	7.27E-09	8.24E-07
4300	3950	0.585223211	7.63E-09	8.59E-07
80127	45884	0.547978862	8.02E-09	8.95E-07
869	1940	1.970150955	9.29E-09	1.03E-06
11938	7028	0.594125977	1.04E-08	1.14E-06
4779	3033	0.58567806	1.05E-08	1.15E-06
9738	22269	1.692947346	1.07E-08	1.15E-06
1664	3390	1.829244124	1.13E-08	1.22E-06
1472	2272	1.868398569	1.26E-08	1.34E-06
2324	3688	1.762055562	1.41E-08	1.49E-06
2220	3756	1.768464481	1.58E-08	1.66E-06
933	728	0.507151411	1.62E-08	1.68E-06
4814	7244	1.651278622	1.94E-08	2.00E-06
6426	4565	0.6000826	2.02E-08	2.08E-06
30354	24564	0.574789659	2.29E-08	2.33E-06
120213	61934	0.550607582	2.32E-08	2.35E-06
18626	19887	1.62269339	2.76E-08	2.77E-06
14617	16000	1.63422633	2.87E-08	2.86E-06
9532	9753	0.602925748	2.89E-08	2.86E-06
16506	12235	0.589673066	2.91E-08	2.86E-06
10080	8574	1.646270347	3.16E-08	3.09E-06
7528	5818	0.5990573	3.36E-08	3.26E-06
1092	1011	1.904361263	3.96E-08	3.79E-06
1385	715	0.533712741	3.96E-08	3.79E-06
71	94	0.306338813	4.23E-08	4.02E-06
3809	5947	1.656752464	4.64E-08	4.38E-06
7029	4370	0.602601255	4.76E-08	4.46E-06
3763	1681	1.740012134	5.50E-08	5.12E-06
268	96	0.37456866	5.61E-08	5.16E-06

2828	1663	0.580478871	5.61E-08	5.16E-06
229	195	0.398692084	5.85E-08	5.34E-06
998	486	0.51181854	6.29E-08	5.71E-06
17876	13257	0.603531416	7.58E-08	6.80E-06
1803	977	0.55636258	7.59E-08	6.80E-06
2527	1505	0.577499564	7.84E-08	6.98E-06
211	184	0.396520967	8.30E-08	7.34E-06
542	196	0.463338996	9.20E-08	8.09E-06
763	439	0.498044226	9.38E-08	8.19E-06
1448	740	0.543803004	1.01E-07	8.76E-06
19109	12379	0.603671015	1.08E-07	9.32E-06
1937	2106	1.760918419	1.12E-07	9.59E-06
585	164	0.474602973	1.12E-07	9.59E-06
5888	4118	0.613625275	1.13E-07	9.59E-06
992	580	0.520322595	1.27E-07	1.07E-05
1663	1882	1.779921523	1.36E-07	1.14E-05
13461	19120	1.600870046	1.51E-07	1.25E-05
53267	43976	0.575506675	1.52E-07	1.26E-05
1108	1861	1.900930607	1.56E-07	1.29E-05
21681	27303	1.646062887	1.64E-07	1.34E-05
477	790	2.279452497	1.75E-07	1.42E-05
3433	3687	1.692487815	1.78E-07	1.43E-05
1239	1231	0.556583028	1.77E-07	1.43E-05
3451	3007	0.604803605	1.89E-07	1.51E-05
6416	8752	1.560734129	1.92E-07	1.53E-05
2102	1324	0.573510621	1.93E-07	1.53E-05
1987	1228	0.578558146	2.00E-07	1.57E-05
703	1328	2.003226707	2.19E-07	1.71E-05
16832	11229	0.611372992	3.00E-07	2.33E-05
61287	50123	0.603639901	3.11E-07	2.40E-05
1746	1586	1.711366926	3.43E-07	2.62E-05
9664	8704	0.626777729	3.41E-07	2.62E-05
1663	2283	1.698141585	3.69E-07	2.77E-05
6532	4810	0.624232994	3.69E-07	2.77E-05
13497	9153	0.618324178	3.67E-07	2.77E-05
1223	1278	1.824808043	4.46E-07	3.33E-05
1638	2738	1.738423358	4.53E-07	3.37E-05
4174	5468	1.585659259	4.57E-07	3.38E-05
8100	8611	1.576356564	4.64E-07	3.42E-05
1962	1087	0.589333181	4.67E-07	3.42E-05
1098	745	0.551741709	5.31E-07	3.87E-05
4012	4641	0.637908987	5.39E-07	3.91E-05
996	622	0.542942828	6.67E-07	4.81E-05
2541	3287	1.650392867	6.79E-07	4.87E-05
12610	6304	0.617643687	6.83E-07	4.87E-05
8659	7165	0.622416016	7.18E-07	5.10E-05
1423	1024	0.567150079	7.65E-07	5.40E-05
6017	3480	0.640527511	7.70E-07	5.42E-05
3426	2181	0.623178734	7.84E-07	5.48E-05
1686	1323	0.594259295	7.88E-07	5.49E-05
433	841	2.124178625	7.95E-07	5.51E-05

1933	1661	0.602953194	8.83E-07	6.08E-05
2001	2320	1.702052665	8.91E-07	6.11E-05
2438	3936	1.67215143	9.18E-07	6.26E-05
3870	3123	0.636295682	9.60E-07	6.52E-05
3780	5439	1.552189374	9.88E-07	6.68E-05
2707	1727	0.618883685	1.10E-06	7.38E-05
1348	1102	0.579726308	1.11E-06	7.46E-05
7019	4784	0.653588359	1.18E-06	7.88E-05
851	525	0.538570632	1.33E-06	8.84E-05
4742	3991	0.646189415	1.39E-06	9.19E-05
611	376	0.511873412	1.50E-06	9.86E-05
3352	5086	1.59435749	1.52E-06	9.92E-05
32893	24771	0.63423209	1.55E-06	0.000101121
7057	4879	0.658712845	1.57E-06	0.00010179
5040	4098	0.651111396	1.66E-06	0.000107367
925	1393	1.804328457	1.72E-06	0.000110639
952	484	0.549957331	1.92E-06	0.000122218
1813	1015	0.597148519	1.91E-06	0.000122218
147	48	0.359285265	1.95E-06	0.000123756
8997	6022	0.637634339	1.97E-06	0.000124077
1386	1269	0.586145628	2.01E-06	0.000125984
276	92	0.43176899	2.03E-06	0.000127083
1351	2194	1.695697594	2.21E-06	0.000137463
412	1043	2.06417572	2.23E-06	0.00013783
1831	1314	0.60820213	2.26E-06	0.000139248
1768	2488	1.662137259	2.27E-06	0.00013935
792	236	0.51533479	2.28E-06	0.000139635
19173	13194	0.646340481	2.33E-06	0.000141832
4044	4658	0.645936955	2.36E-06	0.000142887
113084	62205	0.610666742	2.55E-06	0.00015389
806	240	0.518309201	2.62E-06	0.000157442
842	554	0.544384212	2.86E-06	0.00017087
50629	35723	0.61714677	3.01E-06	0.000179547
180	67	0.39011343	3.13E-06	0.000184948
6472	4389	0.649079672	3.14E-06	0.000184948
1736	1667	0.607447527	3.15E-06	0.000184948
1294	793	0.586759038	3.16E-06	0.000184948
15042	10052	0.636276248	3.41E-06	0.000198773
1746	3339	1.624973968	3.47E-06	0.000201825
2126	3036	1.628636529	3.74E-06	0.000216571
6058	4569	0.654602939	3.79E-06	0.000218347
784	615	1.8097896	4.07E-06	0.000233583
52	36	0.313618442	4.19E-06	0.000239359
2730	1660	0.635137824	4.28E-06	0.000243631
3464	2327	0.647710001	4.38E-06	0.000248354
286342	251526	1.557072934	4.69E-06	0.000264831
664	339	0.53508293	5.92E-06	0.000332918
1476	1299	1.684676318	6.04E-06	0.000338115
2266	1695	0.627428302	6.23E-06	0.000347411
994	958	0.593085337	6.62E-06	0.000367791
2132	2804	1.589915651	6.66E-06	0.000368802

7758	11084	1.47506145	6.83E-06	0.000376368
23839	10901	0.642979005	6.98E-06	0.000383125
23745	19256	0.64959545	7.00E-06	0.00038315
13910	10264	0.647637599	7.05E-06	0.000384204
1710	1610	0.620027691	7.13E-06	0.00038713
750	417	0.554392134	7.49E-06	0.000404914
886	1258	1.762601698	7.74E-06	0.000416876
1186	1026	0.588774564	7.83E-06	0.000418699
50842	52052	1.58557918	7.82E-06	0.000418699
8227	11588	1.48871949	7.91E-06	0.000421015
2017	1631	0.62925853	7.96E-06	0.000422487
343	549	2.118800942	8.08E-06	0.000426483
1299	980	0.603244603	8.10E-06	0.000426483
17781	20967	1.526080773	8.21E-06	0.000430633
309	159	0.474787237	8.45E-06	0.000440602
14793	9935	0.657720265	8.46E-06	0.000440602
1958	1944	0.638614859	8.50E-06	0.000441071
1885	1861	0.629730828	8.83E-06	0.000456177
1523	4134	1.653825729	9.18E-06	0.000472543
97718	71476	0.635779932	9.25E-06	0.000474447
6558	7460	1.481519771	9.46E-06	0.000483478
1225	1829	1.692933029	9.61E-06	0.000489488
22183	25203	1.502639348	1.05E-05	0.000533829
3751	4525	1.571386568	1.06E-05	0.000538123
18771	13698	0.65037052	1.16E-05	0.000585134
719	479	0.562890866	1.21E-05	0.000607598
578	971	1.858781126	1.29E-05	0.000644818
1373	948	0.606439325	1.30E-05	0.000649218
80	1935	2.048615891	1.32E-05	0.000656875
8761	6976	0.666851776	1.33E-05	0.000657992
2	54	15.16546255	1.42E-05	0.000699397
15524	9392	0.647218247	1.48E-05	0.000728031
1903	2203	1.540930874	1.50E-05	0.000734629
299	3037	1.798361608	1.50E-05	0.000734629
2247	3513	1.543682766	1.53E-05	0.000744695
12370	10043	0.672658857	1.54E-05	0.000744695
143	933	2.286931467	1.55E-05	0.000750251
3116	2809	1.513026093	1.60E-05	0.000769434
2178	1397	0.638353155	1.70E-05	0.00081435
1136	906	0.613693622	1.80E-05	0.000857442
663	462	0.561182272	1.79E-05	0.000857442
15342	16089	1.477704741	1.81E-05	0.000857442
720	1236	1.74200856	1.82E-05	0.000863628
253	396	2.219044379	1.90E-05	0.000895343
2386	1768	0.648617615	1.91E-05	0.000900489
1317	877	0.613078113	1.95E-05	0.00091412
7335	5120	0.68667804	2.03E-05	0.000942878
10090	13722	1.452870411	2.02E-05	0.000942878
694	608	0.578488016	2.06E-05	0.000954143
1931	2492	1.579646151	2.14E-05	0.000987783
2795	1792	0.655260415	2.15E-05	0.000989197

16330	22856	1.469957226	2.26E-05	0.001036614
4794	3269	0.669046403	2.31E-05	0.001059373
5537	7661	1.463661767	2.33E-05	0.001063506
4534	5645	1.480260142	2.34E-05	0.001063506
21360	16786	0.66670189	2.41E-05	0.001092376
14449	14891	1.454251088	2.49E-05	0.001126634
7161	1767	0.649800132	2.54E-05	0.001144659
4359	5323	1.496690672	2.63E-05	0.001169507
16046	81697	1.567479999	2.61E-05	0.001169507
756	436	0.573061749	2.63E-05	0.001169507
6352	4101	0.678596077	2.63E-05	0.001169507
3170	2658	0.669882573	2.65E-05	0.00117337
20427	24626	1.457881191	2.65E-05	0.00117337
128	86	0.422557993	2.68E-05	0.001180971
21842	28791	1.46291381	2.69E-05	0.001182315
196	103	0.448445322	2.98E-05	0.001304224
10601	8701	0.668147641	3.13E-05	0.001364742
4066	2034	0.684705866	3.19E-05	0.001389814
298	208	2.206185385	3.35E-05	0.001454866
93757	73141	0.658870286	3.53E-05	0.001525401
4333	4189	0.680736648	3.69E-05	0.001593032
2659	3529	1.488045398	3.91E-05	0.001675793
2055	2013	0.668133025	3.90E-05	0.001675793
1873	1338	0.644331946	3.96E-05	0.001685907
586	810	1.909709505	3.96E-05	0.001685907
759	1098	1.813692633	4.12E-05	0.001750353
989	1233	1.680359169	4.22E-05	0.001778521
731	541	0.582155245	4.21E-05	0.001778521
1718	1192	0.645610005	4.22E-05	0.001778521
3281	2111	0.674043764	4.30E-05	0.001804237
1814	1132	0.646700709	4.51E-05	0.001863265
6	26	36.40731048	4.50E-05	0.001863265
6	26	36.40731048	4.50E-05	0.001863265
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242	303	2.202250681	4.47E-05	0.001863265
4458	4437	1.449830911	4.68E-05	0.001931042
4345	6916	1.441396073	4.85E-05	0.001992808
1	46	14.85640602	5.09E-05	0.002084557
12940	16305	1.444597108	5.12E-05	0.002087096
93	214	2.40591583	5.12E-05	0.002087096
2403	2594	1.519930355	5.22E-05	0.002122721
389	333	0.540393998	5.25E-05	0.002126813
2228	3311	1.505638545	5.33E-05	0.002155058
17286	11121	0.668941182	5.41E-05	0.002177772
4525	2321	0.684186923	5.86E-05	0.002354135
1399	700	0.625088754	5.90E-05	0.002357636
439	124	0.535687834	5.90E-05	0.002357636
13443	9320	0.686301991	5.93E-05	0.002363305
1100	1508	1.666135072	5.96E-05	0.002368698
1462	1234	0.643999509	6.02E-05	0.002383093
896	1690	1.635085165	6.37E-05	0.002507108

6249	4358	0.695341073	6.38E-05	0.002507108
679106	636931	1.50875182	6.40E-05	0.002507108
7321	8766	1.434726365	6.40E-05	0.002507108
2010	1763	0.664110375	6.84E-05	0.002670068
3345	3500	1.509689624	7.36E-05	0.002867762
8203	4875	0.68729235	7.54E-05	0.002927153
3557	3407	0.684347363	7.65E-05	0.002963634
562	309	0.565768133	8.18E-05	0.003158447
3045	2341	0.682227817	8.27E-05	0.003185878
1586	1289	0.64685687	8.43E-05	0.003222264
22080	28412	1.425716613	8.40E-05	0.003222264
5687	4883	0.69418361	8.41E-05	0.003222264
10055	14525	1.421522993	8.47E-05	0.003225678
711	516	0.59525217	8.66E-05	0.00329155
1518	2474	1.495634958	8.83E-05	0.003345072
2303	972	0.666599999	8.90E-05	0.003363202
5904	5770	1.43756063	9.31E-05	0.003510907
2034	2388	1.518518595	9.53E-05	0.003564453
5966	3810	0.689453049	9.51E-05	0.003564453
436	689	1.83753508	9.53E-05	0.003564453
6798	9767	1.406967102	9.68E-05	0.003609751
21365	9722	0.669034143	9.75E-05	0.003625792
21624	18099	0.691040852	9.88E-05	0.003666
57554	53756	1.444786391	9.92E-05	0.003669082
6176	4417	0.700602908	0.000100002	0.003690358
907	1103	1.700946795	0.000104381	0.003841884
3801	2626	0.691436227	0.00010584	0.003865163
19651	19157	1.443208351	0.000105315	0.003865163
4200	6180	1.407840814	0.000106093	0.003865163
400	263	0.531806997	0.000106113	0.003865163
340	622	1.803042789	0.000106544	0.003870831
3352	4487	1.442700876	0.0001074	0.003881843
1635	1288	0.65240506	0.000107219	0.003881843
152173	194329	1.45799819	0.000113198	0.004071564
13119	11598	0.696641852	0.000113228	0.004071564
13725	10868	0.698853263	0.000116255	0.004165129
633	948	1.704688114	0.000116422	0.004165129
2283	2237	0.680210221	0.000117475	0.004192142
97	168	2.764077131	0.000119858	0.004259338
48252	51096	1.460202296	0.000119964	0.004259338
827	1533	1.628871759	0.000121034	0.004286483
6746	3431	0.701704972	0.000121918	0.004306951
750	787	1.704639243	0.00012354	0.004353329
1353	1836	1.564215845	0.000126576	0.004449144
1228	1235	0.647965195	0.000128228	0.004495964
332	688	1.850439885	0.000130149	0.004551974
462	585	1.759663986	0.000131689	0.004594424
1504	1867	1.540862217	0.000134907	0.004694141
1613	1968	1.50546519	0.000135432	0.004694141
433	851	1.760895234	0.000135549	0.004694141
4837	3918	0.70408938	0.000135981	0.004697524

541	208	0.552713243	0.000137115	0.004725093
16666	10708	0.712588338	0.000138976	0.00476586
2895	2035	0.684712982	0.000138933	0.00476586
10741	12557	1.41607544	0.000140931	0.004821151
2271	2023	0.685570618	0.000141325	0.004822876
646	2800	1.618671463	0.000143091	0.004871315
14574	19356	1.424576518	0.000145197	0.004931092
6450	5369	0.717617534	0.000146672	0.00496916
1687	1185	0.656748181	0.000147406	0.004982041
15020	16776	0.70795092	0.000148017	0.004990677
8301	9865	1.406847653	0.000151646	0.005100807
6414	9598	1.407853784	0.000156258	0.00524342
4183	3770	0.704680742	0.000160849	0.00536264
17707	13494	0.70374077	0.000160438	0.00536264
88	167	2.697683731	0.000160955	0.00536264
7311	5263	0.707368693	0.000161568	0.005370319
17352	24085	1.401737552	0.000162536	0.005389757
334	523	1.876582416	0.000172108	0.005693746
2141	1546	0.682037093	0.000174215	0.005749923
7244	5718	0.710215496	0.000179602	0.005913843
1606	1816	1.526800477	0.000189327	0.006219465
52284	38551	0.694164335	0.000194076	0.006360611
767	1072	1.633109231	0.000199473	0.006522287
3867	2973	0.696930516	0.000204188	0.006660996
194	419	2.007375088	0.00020869	0.006792095
2585	2206	0.685824397	0.000210493	0.006834954
2932	2097	0.689658623	0.000211155	0.006840648
50804	43689	0.68796364	0.000213641	0.006905269
274	288	1.809591256	0.00021451	0.00691746
18376	14947	0.696157024	0.000215505	0.006933642
3026	4042	1.432602585	0.000217366	0.006972414
3070	2686	0.709300957	0.000217702	0.006972414
1366	1578	0.673439651	0.000218815	0.006992133
10692	7500	1.396882756	0.00021969	0.007004164
3261	2262	0.707630962	0.00022988	0.007312463
992	712	0.630982281	0.000233679	0.007383213
201	272	1.933946017	0.000233526	0.007383213
12825	17170	1.375159904	0.000233123	0.007383213
259	187	0.528200145	0.000236106	0.007443149
15311	13313	0.697228194	0.000236851	0.007449937
8419	7538	0.725023801	0.000242884	0.007605671
9492	8226	0.711494072	0.000242368	0.007605671
4827	3549	0.705238389	0.000249673	0.007800894
2885	3781	1.441133408	0.000262494	0.008183285
20	41	0.328455717	0.000263464	0.008195353
7669	9735	1.395809889	0.000265672	0.008245817
545	870	1.611753399	0.000268279	0.008308386
644	569	0.610108799	0.000277357	0.008570629
1962	1235	0.677121491	0.000278111	0.008575096
3305	2752	0.712893255	0.000278815	0.008577979
5102	7324	1.400505861	0.000280363	0.008588012



5261	5252	1.37939703	0.000280039	0.008588012
8382	7599	0.724347567	0.000282969	0.008592961
2133	2416	1.45850288	0.000282382	0.008592961
1350	2218	1.501976042	0.000282393	0.008592961
2648	1985	1.460441214	0.000281912	0.008592961
641	992	1.663254052	0.000289084	0.008759747
5896	7671	1.388946511	0.000289921	0.008766224
7257	8861	1.368863804	0.000292405	0.008822337
8263	6129	0.708822532	0.000296774	0.008934987
13411	11415	0.718359107	0.000299501	0.008997822
918	1262	1.62314793	0.000300565	0.00901054
24056	30074	1.414954934	0.000301714	0.009023959
4071	3132	0.709092778	0.000302296	0.009023959
3144	2452	0.704650085	0.000306206	0.009121321
6594	6372	0.718475322	0.000310773	0.00921828
572	1135	1.638963909	0.000310119	0.00921828
605	531	0.61318716	0.000316007	0.009353815
2963	4791	1.400397846	0.00031869	0.009413414
877	1632	1.556356785	0.000320997	0.009461665
1088	1832	1.504638828	0.000329559	0.009693729
2489	2579	1.431317599	0.000334685	0.009823958
200	407	1.974379452	0.000339051	0.009931357
20494	21537	0.725449946	0.00034035	0.009948692

<b>Row.names</b>	<b>VD-1 in experiment 2</b>	<b>VD-2 in experiment 2</b>
chr8:hsp70l	656	601
chr24:ahrra	175	210
chr3:zgc-174006	221	144
chr3:hsp70	365	275
chr4:lepb	39	34
chr13:slc1a4	3629	2594
chr4:si-dkey-14d8.6	25274	26107
chr16:fabp10a	81059	53267
chr19:cyt1l	112148	103062
chr19:sesn2	1392	1105
chr1:dnajb1b	1086	804
chr8:ela2	242009	349930
chr3:gtpbp1	8782	7116
chr7:LOC562139	97944	105531
chr5:ela3l	289976	337496
chr12:scd	371	338
chr3:cyp2k6	694	274
chr22:zgc-110409	9373	9532
chr16:zgc-171704	29	28
chr5:hmgcra	3755	2720
chr1:cryaa	31854	25836
chr7:zgc-136461	161841	171503
chr17:zgc-92137	94584	102799
chr20:atf3	5472	4544
chr5:LOC796384	2537	1824
chr20:ctsbb	10288	8834
chr23:mipa	35881	34353
chr5:ins	1945	1591
chr3:timp2b	2120	1379
chr18:si-ch211-107o23.1	1515	1110
Zv9_NA930:zgc-112199	62	83
chr14:fosl1	2262	2635
chr15:zgc-110266	1560	1319
chr5:gc	17001	12610
chr13:zgc-171534	3759	2784
chr12:asah2	13369	13725
chr1:slc34a2a	8516	8232
chr5:psat1	2972	1578
chr5:tars	7166	4979
chr6:zgc-162630	9991	9503
chr23:mipb	57888	53949
chr12:gip	405916	393536
chr12:socs3b	7445	5566
chr20:mep1a.2	7410	6472
chr3:grifin	7869	5099
chr5:zgc-110340	4782	4662
chr11:zgc-110286	136	158
chr1:sparcl1	4450	3231
chr18:si-ch211-219a15.3	1114	854
chr7:six7	22022	18474

chr25:cpa5	271951	325993
chr16:pklr	62712	61287
chr1:si-ch73-6k14.1	432	274
chr5:ptrh1	452	307
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chr7:zgc-172290	6	8
chr15:pmepa1	81957	94992
chr4:kera	2959	2938
chr19:yars	7747	5744
chr25:cpa1	33508	37363
chr2:pnp5b	2519	1985
chr1:junb	7920	9235
chr1:LOC100005630	2399	2342
chr2:tfr1a	3359	2698
chr16:zgc-92590	1854	1172
chr9:crygm2c	1188	947
chr9:zgc-153846	2706	1649
chr16:zgc-136551	4815	4325
chr3:slc4a1	7239	6554
chr22:zgc-92511	5646	5920
chr2:grk7a	23836	21360
chr9:cx50.5	915	793
chr24:cpb1	151527	196414
chr7:zgc-172260	131	37
chr1:zgc-153118	16	47
chr1:cyp4v2	4349	4045
chr5:si-dkey-127j5.5	12215	11233
chr1:cx44.1	1930	1536
chr13:comtd1	525	408
chr4:si-dkey-14d8.7	1312	1373
chr5:nos2a	74	80
chr16:aqp10a	1315	1399
chr21:cell	42660	48375
chr11:vgll4	115647	130511
chr13:brf1a	1812	1304
chr18:lctlb	6824	4547
chr19:si-dkeyp-113d7.4	363827	286342
chr20:mep1a.1	9284	7772
chr6:opn1mw2	454	379
chr15:hmbbsb	1000	633
chr11:zgc-110377	3325	2359
chr1:rtn4rl2a	5511	5172
chr1:zgc-154142	6021	7733
chr6:opn1mw1	12141	12383
chr2:si-ch73-252g14.4	6807	5549
chr20:mep1b	4919	4300
chr7:zgc-112160	194421	246294
chr20:ociad2	1251	1112
chr15:guca1c	8086	6016
chr24:zgc-162925	2544	2140
chr7:zgc-162126	11927	9651

chr8:LOC798846	429	465
chr9:phgdh	6016	4387
chr14:zgc-154020	6045	6471
chr15:chchd2	8158	8484
chr15:hsp47	861	761
chr5:mthfd2	696	514
chr17:odc1	18584	16976
chr5:hmbsa	1168	795
chr17:ctsl.1	48350	40051
chr25:cpa2	422	249
chr8:zgc-136909	1181	1294
chr24:zgc-172142	1335	1024
chr8:ela2l	336669	407366
chr7:zgc-171537	638	650
chr12:si-ch211-215111.5	52605	52148
chr12:slc16a3	6044	4937
chr12:zgc-158404	940	646
chr3:hspb9	6344	3559
chr2:zgc-136930	256630	234192
chr17:prox2	1392	1256
chr21:zgc-153027	870	750
chr7:c6ast4	149337	151730
chr16:try	1094010	1260012
chr7:cars	4092	3070
chr23:zgc-101050	5634	4351
chr22:he1a	152	56
chr4:slc26a3	375	812
chr20:ptgs2b	2142	1668
chr9:crygm1	274	127
chr8:alas2	4747	3208
chr16:zgc-66382	847175	1058202
chr10:slc5a1	26899	24820
chr25:zgc-136980	12041	9006
chr12:zgc-112285	29501	23397
chr7:c6ast3	8154	8832
chr12:crygmx	38464	29784
chr18:ctsh	4826	3524
chr14:hbegfa	1299	1321
chr8:cebpb	17561	21677
chr22:atad3b	12026	12138
chr19:asns	4459	3370
chr6:mars	16689	14057
chr20:hsp90a.1	9273	8185
chr17:wars	2899	2072
chr16:invs	1134	1078
chr19:slc2a3	10087	7602
chr2:ptgs2a	3112	2970
chr11:LOC795788	2499	2341
chr18:LOC567512	706	569
chr3:pdap1	2976	2629
chr10:ambpl	22151	17942

chr7:zgc-153723	331	299
chr9:col8a1a	3108	1985
chr4:ms4a17a.17	1806	1107
chr7:slc1a2a	7093	6048
chr8:si-ch211-229n2.6	2	4
chr5:nox1	90	143
chr2:slc1a8b	3936	2932
chr8:rh50	982	690
chr3:zgc-172051	7438	6168
chr15:il12a	80	58
chr21:gfpt2	3820	3489
chr15:zgc-153258	2246	2469
chr4:calua	2341	1877
chr6:slc15a1b	41025	41839
chr15:rbp2a	11357	7791
chr9:slc15a2	6219	4760
chr5:pdzd3b	1325	1247
chr22:ahsg	2716	2439
chr3:nme4	1600	1476
chr8:unc45b	2282	1933
chr2:mpv17l2	899	571
chr2:tfa	55477	45915
chr9:ugt1ab	4382	4639
chr14:iclp1	876	653
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chr2:si-ch211-284o19.6	122	150
chr7:exosc6	1385	1166
chr2:cnn2	7546	6940
chr16:adcyl	13002	12373
chr25:zgc-112242	1399	1077
chr8:rps8b	1920	1398
chr5:zgc-114142	10428	7840
chr21:bxdc2	8953	7309
chr19:atxn1a	8421	7669
chr10:zgc-92611	5357	3365
chr12:ghitm	22435	26607
chr11:ddx49	2155	1520
chr15:scn2b	6522	5770
chr14:arhgef9	2725	2380
chr14:smyd5	1196	800
chr11:ptp4a1	19386	14183
chr7:zgc-194686	66	62
chr13:polr1c	2030	1267
chr22:capn2l	2083	1479
chr3:zgc-173594	237	114
chr19:col11a2	20210	18487
chr3:baxa	4355	3340
chr16:zgc-162150	448	490
chr5:zgc-172163	1392	946
chr2:crygn1	4059	2614
chr17:zgc-153612	1988	1546
chr13:cyp17a1	878	600
chr18:sema3ab	5264	4192
chr13:si-dkey-47e6.1	7032	6661
chr8:si-ch211-106g4.2	9457	8547
chr12:abca5	7855	6656
chr23:pacsin1a	10572	9594
chr9:cryba2b	172543	121018
chr21:hspb11	5096	3791
chr7:f2	13275	9962
chr20:hlx1	1098	987
chr15:phkg1a	2943	1892
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chr11:zgc-92474	6784	7335
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chr2:ebna1bp2l	2435	1929
chr19:brp16	1459	1183
chr24:ezh2	2994	1808
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chr16:lingo4b	3647	3191
chr21:dolpp1	2567	2181
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chr11:scarb1	4696	3857
chr13:st3gal5l	3121	2854
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chr24:idi1	4733	3122
chr9:crygm2d3	53442	35082
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chr5:anxa1b	1754	1132
chr6:zgc-171476	4417	4122
chr12:aldoab	207280	180574
chr17:dvr1	589	297
chr14:zgc-65749	4354	4130
chr3:cyp2k22	17	2
chr17:fabp7a	15147	9997
chr12:acsf2	4014	3534
chr3:maf1	515	467
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chr20:cx35	1901	1761
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chr13:eif4e1c	3456	2096
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chr22:gpx4a	24672	17286
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chr4:myf5	395	317
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chr14:foxi3b	1666	1677
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chr10:cryba4	300462	194288
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chr13:c1d	1119	946
chr23:tcf21	249	173
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chr17:zgc-162913	3512	3361
chr9:mxc	249	213
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chr8:zgc-123077	107	115
chr8:zgc-152682	107	115
chr24:anxa13	9951	6636
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chr8:gmat2	37516	30354
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chr12:chad	4060	2561
chr17:slc8a1b	10666	7585
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chr16:gnrhr3	365	419
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chr16:grwd1	6128	4752
chr16:rrp15	3314	2801
chr22:zgc-92479	25246	23906
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chr9:dhrs9	7374	5629
chr14:zgc-113138	1270	964
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chr9:pcbp3	8505	6986
chr15:kcnj13	2793	2082
chr19:zgc-123347	2764	2722
chr6:aldh1l1	7881	6603
chr20:zgc-86709	3622	2274
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chr9:gpr39	16290	20864
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chr10:per1a	36275	32250
chr18:utp15	6347	5674
chr5:nono	12006	9105
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chr10:znf259	2522	1835
chr18:ugt5c3	705	505
chr12:irf9	1275	1067
chr24:tgif1	6944	5943
chr19:slc6a18	3792	3561
chr4:srgap2b	6693	5885
chr9:acmsd	2134	1961
chr5:LOC555453	19	12
chr5:cyr6111	909	648
chr17:dtnc	6586	4903
chr9:ddx18	11349	8662
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chr10:por	12273	8538
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chr2:ccdc24	1504	1184
chr25:LOC567595	12592	10059
chr3:hsd3b7	5581	4770
chr22:si-dkey-110c1.7	10446	8087
chr9:si-dkey-18p12.4	62	27
chr1:mb	13922	12702
chr16:osr2	7700	8972
chr14:arl3l2	1502	1358
chr19:tomm40l	3722	2475
chr2:prpf38b	7458	5896
chr12:zgc-174622	920	654
chr16:s100a10b	6735	4756
chr15:rab34	726	405
chr23:psmb6	14885	14722
chr20:cyp46a1	153	130
chr23:cacnb3a	1902	1392
chr5:rhobtb2a	6337	5462
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chr5:zgc-194261	6442	5883
chr9:zgc-66484	2768	2178
chr25:pus7	14130	12969
chr6:sec23b	35912	32957
chr3:zgc-56066	1993	1867
chr12:maff	9616	9939
chr17:zgc-158781	577	413
chr19:rbm24a	4830	6185
chr20:plg	35810	31607
chr12:skap1	419	232
chr8:mak16	4427	3313
chr11:ipo9	7498	5930
chr11:tp53rk	2059	1633
chr17:prox1	10156	8594
chr14:zgc-110652	2060	1271
chr18:st3gal2	1298	1238
chr1:zgc-103570	4745	4261
chr17:disp2	6279	4918
chr21:ccdc55	1739	2130
chr23:zgc-158791	4985	4672
chr1:nr3c2	1921	1780
chr16:rcc1	1807	1145
chr14:zgc-101609	861	556
chr5:foxd1l	1346	1510
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chr7:zgc-136860	3515	3496
chr9:si-ch211-235e18.3	55550	48807
chr22:kng1	10203	8360
chr13:capn1a	7725	5498
chr22:zgc-77082	1457	1503
chr23:abce1	38455	29916
chr8:zgc-113183	1411	739
chr2:si-ch211-122l24.4	37	11
chr6:eif2s2	29602	24045
chr16:hmg2	31254	25101
chr12:zgc-171978	464	457
chr8:mapkap2b	215	208
chr10:nle1	3617	3126
chr1:polr1e	3232	1805
chr4:copg2	26164	23215
chr16:dyrk1b	35662	35429
chr9:slc25a6	3924	2946
chr16:bcam	5107	4141
chr13:si-ch211-117n7.7	713	688
chr22:hsd11b3a	2334	1736
chr8:rimkla	51167	47895
chr7:zgc-172065	223	178

chr5:EIF2B1	511	267
chr1:ZGC-111983	47104	37226
chr3:SEPW2B	5121	2341
chr25:ZGC-112084	3513	2750
chr8:PIWIL1	2086	1670
chr5:SI-CH211-102C2.6	6604	5845
chr17:SRP14	2031	1512
chr19:SLC9A3.2	1958	1792
chr8:ULK1A	10854	7758
chr2:ZGC-92406	876	775
chr21:ATP2A2B	23974	19298
chr2:OPRK1	1283	1213
chr19:MRPS18B	2123	1654
chr17:ZGC-193593	4897	5341
chr19:SI-CH211-30B16.2	2257	1930
chr20:WU-FC14H06	279	193
chr22:ZGC-113397	124	135
chr8:DMT1L	1482	1078
chr11:PPARG	7013	8070
chr12:TCTB	384	270
chr3:CLDNI	18487	19577
chr20:CYP2P8	1803	1635
chr3:ZGC-171753	27311	21114
chr23:ZGC-194314	225	92
chr6:ZGC-158429	1816	1511
chr2:PTH1RA	917	661
chr21:PCSK1	17302	15818
chr3:AQP8B	17	30
chr7:ZGC-172109	1	0
chr1:ZGC-56382	39705	31746
chr22:FREM1B	4620	3437
chr5:GTF3AA	2831	2121
chr9:ZGC-165347	24827	20211
chr14:PROM1A	7905	7020
chr8:FXN	718	649
chr8:SI-DKEY-46A10.3	3611	2584
chr19:S100S	3077	2786
chr1:PPWP2H	5324	4066
chr2:ZGC-154086	719	528
chr9:ZGC-91818	3747	2923
chr10:ZGC-136807	2444	1937
chr12:NGFR1	472	436
chr18:WNT2	926	894
chr19:NFE2L3	2562	1808
chr1:TECRB	14637	11824
chr2:EIF2B3	4637	3526
chr6:AGXTA	6091	5203
chr19:ZGC-153384	12468	12698
chr5:LOC796505	5187	4965
chr24:ZGC-110852	1571	1274
chr3:SLC5A11	3363	3328

chr8:slc5a9	801	952
chr5:pho	2050	1610
chr10:nfil3	8700	7024
chr10:samsn1b	3037	2470
chr19:ntla	2626	1800
chr7:zgc-194626	59	50
chr14:fgfr1b	2993	3273
chr20:glrx5	3221	2254
chr18:si-dkey-103i16.6	1964	1538
chr8:kcnn1	1091	937
chr20:si-dkey-19f21.3	799	759
chr17:gale	1860	1475
chr20:zgc-171525	6128	7057
chr5:si-ch211-89f7.1	1967	1984
chr21:camk2a	7754	5898
chr12:pth1rb	795	558
chr18:ssr3	1726	956
chr2:si-ch211-71m22.3	89	37
chr20:zgc-112104	7094	5173
chr9:zgc-113314	261	178
chr8:mobkl2a	2719	1998
chr21:rars	14516	10605
chr5:homer1	2089	1875
chr3:tob1a	76141	64384
chr22:zgc-56533	1893	1398



VD-3 in experiment 2	VD-1 in experiment 1	VD-2 in experiment 1
789	11654	13963
524	2194	1322
257	3041	3753
731	3771	4302
12	429	1818
4442	14523	13502
17685	8000	3854
43976	10485	8714
67629	18165	15419
1355	4552	4775
983	4337	4271
330855	71558	38537
8896	23545	32616
79658	22628	15940
276682	69303	44904
342	1528	1919
288	3009	2553
9753	2708	1965
29	502	572
2210	10774	10429
28047	9476	4453
124145	37862	26310
88423	24231	17232
6340	13670	15608
1497	7176	6976
4744	2588	2018
39411	12048	3936
1004	391	162
1521	3375	9236
1160	3598	4314
116	516	909
2615	4930	8166
1619	3811	5234
6304	4174	3099
2596	709	845
10868	4451	3542
7702	2946	2364
2196	6056	6156
7024	15622	18023
11649	26525	31232
60130	21207	7947
204792	63906	59539
11526	17803	25077
4389	2133	1425
4788	3258	1118
7969	12270	15206
110	641	861
3174	1079	549
1208	267	117
16604	10010	4896

307413	116905	73161
50123	20340	16138
671	1013	1782
376	1018	1394
266	883	1181
25	250	242
34587	14279	13427
2185	1221	567
7239	14772	16287
36865	17027	10974
1864	5092	4678
24178	26489	38082
1582	665	544
2402	6817	7183
1157	540	243
995	3626	2883
1767	7472	4761
4468	10048	12196
6838	14839	15732
4749	2138	1644
16786	10421	5295
735	217	100
171819	70789	46208
68	587	367
588	6	6
1540	1636	959
9884	23134	24860
1888	758	339
241	76	25
948	382	232
1935	61	30
700	402	300
40790	21160	13882
48375	24117	22776
1715	3559	4097
5221	3164	1810
251526	112884	90423
6131	3279	2633
440	1521	1088
723	1977	1962
1358	796	621
3893	2169	1308
1768	2617	1591
7658	7033	3511
5628	2673	1876
3950	1846	1415
175604	84193	55431
906	2221	3138
4828	4126	2174
2510	4998	5136
10323	23094	22687

589	751	2445
3718	9748	9586
85399	5062	9359
7973	15531	15725
881	1381	3202
711	1583	1570
16131	31939	38936
699	2043	2322
28043	16743	14096
420	991	728
793	463	226
1259	2532	2816
337152	167469	104777
226	110	132
40642	30961	20040
4098	11104	10570
2800	2329	2749
4213	11706	13995
220614	95246	71578
1245	710	310
787	1566	1683
162329	75982	50037
1221888	532426	356418
3413	6707	6929
3802	2167	1998
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122	92	150
2708	3589	5494
243	1010	716
4379	7055	9582
846488	442192	282138
29392	12961	11450
7259	5287	3706
25095	15722	10190
10606	5043	3540
37110	21442	11939
5255	1831	1808
2129	2882	3375
35189	38251	57053
12822	20913	20590
3261	7316	7689
16723	28944	30578
10823	15553	17540
2371	4780	4568
948	2205	2404
5899	15807	11266
5032	6526	7554
2134	5044	5006
566	251	119
3492	5068	4523
13849	8513	6951

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2258	5268	4822
1922	608	472
5505	4048	1952
261	4	5
933	66	106
2097	1926	1066
280	276	129
3516	2320	2343
0	185	192
16785	3236	3164
4143	4568	4221
2520	3973	3945
49018	25284	19667
7599	5174	3561
4141	3081	2253
856	360	348
1021	728	685
1299	629	516
1661	3419	4143
821	1393	1543
30526	14328	20739
2581	1874	1539
698	255	172
1218	2136	1787
118605	66130	46545
419	1238	1315
5566	3710	3647
2253	1623	1257
9937	14683	11430
13494	9091	6242
705	1345	1485
20693	3010	3257
3071	5656	6161
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37175	47996	35150
6923	6014	5165
5789	5059	3803
878	856	641
33036	50180	46616
1316	1866	1705
30	44	131
30076	36592	35525
22549	39286	30739
395	656	658
294	153	94
4488	5300	5061
2100	3683	3464
25874	36239	34458
32239	26431	18545
2429	2700	1575
4460	3794	3213
537	332	324
1667	1460	1092
46450	75054	57238
1173	197	157

321	652	620
176580	46566	33773
1530	5876	4090
3132	2268	1871
1820	1243	915
4657	4563	3584
2201	2699	2414
1587	1443	1113
11084	16210	14167
372	393	386
23287	31375	29387
996	924	540
1643	2659	2471
5965	9730	7042
2104	1674	1056
622	172	134
166	38	55
1310	2265	1966
6873	5073	4418
435	669	685
22047	28568	28476
1288	1239	910
19158	32507	29150
67	306	288
1567	2373	2243
654	588	357
12967	12264	7760
8	3	1
9	36	26
144802	39148	28708
3870	3193	2687
2593	4028	3519
20665	18319	11066
5596	6319	4416
646	1186	937
2673	4541	3844
1738	2300	1283
5716	7471	7117
332	873	818
2712	2689	1667
2106	1559	1394
421	298	207
764	1245	1209
2578	3472	3279
10520	9411	7157
3622	5409	5156
4346	4650	3011
10334	15624	14064
5683	7591	7076
1432	958	794
2930	2749	1841

484	427	312
1815	2697	2662
8192	11747	11010
2637	2144	1363
2191	3604	3028
21	17	8
3232	2415	1912
2138	3931	3572
1730	1320	856
811	752	372
696	542	493
3248	1386	1247
4879	8255	6952
1519	1326	923
5276	5362	3532
457	423	292
624	1846	1745
40	19	10
6645	9196	8320
273	411	413
2186	3591	3399
13079	16925	17295
1999	1320	985
61779	64710	40548
2149	1347	1106

VD-3 in experiment 1	VD-4 in experiment 1	VD-5 in experiment 1
13018	22488	694
2151	8084	10321
4656	6920	127
6108	9387	318
1167	1578	34
15900	27606	1939
3757	4262	912
6720	9648	11236
7686	12366	18420
5951	9100	782
4397	6211	559
48658	60790	19685
35523	55578	4954
14260	22482	8731
46685	61758	21273
2057	3527	212
1795	2908	181
1554	2922	1208
584	699	21
9639	14742	1252
3270	4355	8898
24029	37452	15089
17607	26452	7822
20028	33839	2743
6486	10087	975
1470	1785	1256
3169	3006	16105
168	172	153
4619	8489	794
4612	7771	509
792	1224	57
8376	13794	1296
5186	8271	598
2034	3241	3236
641	694	320
2610	4980	1673
1948	2919	1138
6264	10534	1242
17180	28403	4199
28006	45950	6162
6468	7347	28085
51724	70950	129534
22662	37043	3732
1192	2077	1794
717	890	2327
15212	23803	3569
856	1046	92
390	519	2213
81	68	404
3566	4738	5835



67991	99772	26701
13994	22020	11416
1691	2857	212
1529	2318	268
1320	1962	190
157	335	13
13379	18593	37692
410	483	924
15624	27872	3768
11430	15513	2634
5724	8285	1091
32402	56569	7918
452	748	275
6166	10014	1520
332	313	124
2200	3323	1091
4331	4462	2013
10018	14849	1985
15420	23567	4760
1752	2752	561
3423	5166	9417
47	61	343
49521	73791	16399
349	860	47
7	1	58
678	1188	539
24349	43316	6582
196	301	739
16	12	120
291	429	51
217	286	30
192	249	153
14078	21798	4398
21745	30162	49352
3399	5714	1169
987	1475	1954
61245	72224	106513
2224	4032	1604
1082	2193	333
1902	3057	864
627	939	477
1535	1557	1609
1305	2870	622
2547	3059	3275
1876	3355	892
1333	2451	495
62698	101195	22858
2563	4380	399
1352	1738	1900
5416	8831	702
20308	31509	8979

1288	1930	217
9264	14664	2872
13777	23963	6553
18045	27685	4057
1883	2971	413
1679	2605	486
40396	54194	10174
1850	3405	627
11126	15921	12492
1559	1725	91
243	336	146
2850	4345	452
120536	175273	39272
91	111	28
11494	17903	9978
8548	13594	3034
2840	6123	1009
6819	8003	3040
52369	71087	101830
211	206	430
1604	3200	906
58001	75466	15565
390372	613401	158358
6621	10888	1724
1309	1926	1330
0	7	0
71	77	14
3739	6074	1709
614	762	172
6823	10848	2905
308279	479777	104682
8995	16605	4499
3005	4484	2789
6083	8836	10195
3966	5268	1197
8318	14758	12029
1350	2412	1423
2823	5001	1196
46574	79950	14613
22556	38127	9444
6435	10340	1583
30042	49239	7576
16677	25733	7646
4479	7111	1455
2135	3388	577
15641	23229	3602
5815	12172	1154
3994	5896	1288
86	145	149
4964	8512	3389
5481	8430	7687

376	446	557
3764	6184	1899
427	886	321
1509	1802	3335
2	1	15
70	97	56
721	942	1065
142	224	48
2245	3575	1421
271	480	2
2759	5054	2690
5670	8412	2602
4012	6287	1730
13684	26910	6381
2730	4468	3186
1482	3003	802
285	483	338
726	1197	432
428	539	357
3590	5457	1044
1758	2757	424
14073	23743	16542
1177	2181	1109
181	202	232
1221	2939	2443
36965	59774	48105
1298	1854	805
2785	4258	2136
1010	1888	668
8822	21852	27185
6341	10264	2322
1164	2118	378
4461	7081	3782
5842	9533	979
567639	906228	196423
6005	9427	8532
1360	2192	2051
11074	17112	3871
3547	5982	1945
4763	8459	1929
6420	10059	6678
1539	2517	999
859	1341	821
7211	7688	8388
3523	5361	2687
436494	717529	151597
3816	5922	1010
273	384	1059
2077	3600	6805
35876	56518	28124
1540	2578	1556

13428	21423	5492
175144	277646	64011
259	369	82
3609	5723	3070
537	985	381
2132	2913	2167
6567	12177	1957
184	435	96
3174	6368	3522
1035	1528	511
243	447	358
133	130	67
9626	13561	9087
1402	1916	1149
407	764	98
1447	2306	1591
2954	5228	1552
2217	3769	807
129	147	212
8719	15273	2632
409	674	657
17581	29283	5389
8130	11059	5951
728	1375	932
1607	2109	1108
10181	13549	6759
35	69	41
1966	3111	1568
55417	80560	19239
2989	4832	1380
1436	1629	1035
16984	28173	5256
80652	134123	21588
1014	1663	731
23239	35047	17111
1934	3126	1340
2392	3059	975
5580	6480	4738
1030	1147	756
37850	55985	13856
927	1345	1151
1479	2069	2648
66174	97453	15145
999	1813	1127
13200	21961	5936
7012	12962	3518
1714	2449	3044
339	605	284
368	763	13
2150	4275	1480
7575	12589	2581

61213	122391	18614
981	1747	1036
927	1607	281
1323	2562	1464
195252	335653	87259
828	1389	497
13888	18819	19163
1525	2460	840
18497	21343	15750
13466	21193	22758
4131	6770	1197
1575	2482	505
3252	4576	1358
20	50	101
72208	128870	18953
7796	12533	4715
4812	7622	1697
287	549	288
1278	2213	1035
28875	43176	8514
3353	5853	1081
207	386	89
2865	4042	750
2446	2827	1355
1747	2615	1624
5003	7718	3528
11219	17887	2802
683	1114	1649
895	1594	987
231	583	124
2907	4372	6138
24848	41605	19791
620	911	518
530	834	537
6100	8916	3540
34439	58414	10947
763	990	626
7305	10898	1887
9220	12468	13389
34311	52413	12063
54893	91553	15100
688	959	762
7315	11372	6523
1490	2198	365
881	1589	987
4942	8028	1357
247	568	787
987	1589	701
896	1634	1011
119	231	30
534	864	269

22163	26761	29501
2063	2940	494
2965	5912	1163
0	7	0
360	609	351
974	1754	229
44862	80854	14266
1254	1909	675
1205	2053	912
1409	2323	1318
2304	3403	1220
847	1597	804
12519	19585	6089
48732	79310	35329
299	731	133
1632	2555	546
361	676	189
2316	4197	1623
3811	5145	1077
5277	9623	1694
1632	2918	960
3961	6537	2872
4351	7126	1414
10483	15943	3359
65	142	75
1870	2962	496
2501	4139	1949
7154	11491	1632
178	315	49
6766	11378	3517
4988	6511	3239
2972	4997	590
18793	31507	5973
6618	11184	2649
27274	45571	10399
830	1260	867
4027	7271	2030
18280	30101	6797
436	634	28
2532	3884	978
1314	1656	1441
3201	4922	1140
81071	158662	77500
1212	2094	504
2292	3481	610
29674	48676	9459
344	620	134
7083	11749	5732
749	1148	539
243	437	388
599	1045	300

41129	60677	39454
213	114	1021
2077	3155	1685
880	1542	840
28168	36492	6826
719	1353	310
4174	7339	2490
1627	2347	2879
12416	19467	5291
1855	2891	1655
4589	7261	1723
418	590	296
25360	42554	8824
1311	1923	2596
1385	1605	1866
3387	5603	1899
10439	17497	3029
91070	152643	27241
4233	6683	1314
53447	99769	19726
1234	2147	495
3192	4714	2166
2005	3330	667
5854	11296	3482
5435	7802	3131
11776	18177	2518
7443	12005	5545
20472	36786	7172
358	674	418
6426	10622	4913
6317	10226	3150
7710	12147	5394
2068	3327	4853
882	1451	690
983	2056	431
3812	6787	1619
1314	2642	1191
19018	25704	13263
316	351	419
1247	1984	281
4101	6084	1254
4455	6582	3330
17077	23333	4682
11272	17689	9974
47026	77383	17073
5264	9229	2186
33285	34483	21929
1819	2782	1272
7160	11879	2849
10034	16364	3741
7488	10461	5412

24842	41174	19536
5609	8915	5565
4686	6847	4857
7010	9115	5241
10691	15576	9107
731	1426	248
512	906	322
152	267	204
817	1631	727
4113	5731	4097
22770	38041	8428
1443	1995	1087
4384	5972	2966
1864	3507	1260
1052	1757	569
1032	1318	1048
23309	25293	18991
177	187	173
1796	2838	580
22899	40488	11150
164	280	250
1587	2315	1641
4511	7872	3148
3021	4450	1550
1218	1878	485
1600	2727	429
4864	6623	2764
3318	5460	2576
2368	3259	2776
298	458	109
820	1334	872
4311	7818	2721
816	1250	350
661	1100	361
147	177	217
1437	3024	1125
3851	6179	2220
157	296	294
4396	6787	1709
14703	25078	6412
616	753	588
1690	2527	274
3373	5425	1678
2542	3781	1657
231	380	186
24306	31566	5620
41	61	83
521	1072	572
256	523	187
1863	2619	587
31070	49313	25872



3263	4643	4120
918	1503	103
2531	3081	773
6933	9240	2976
19303	37783	12673
3612	5754	1550
693	852	71
5944	8839	4634
43	95	93
1811	2631	1405
80875	128363	37808
7006	11616	2958
47051	70808	32962
618	866	411
295	508	219
6663	10095	2849
3921	5841	1070
4259	6292	2710
5114	7952	2629
51	67	17
4324	7199	2807
120	201	62
4908	8095	1968
1757	3704	1056
4339	5538	3109
13	36	139
1540	2338	540
2025	2923	1505
52	76	29
2477	4073	1035
1509	2425	1306
19180	28800	28445
4384	6962	1806
1676	2257	2770
181	390	233
57273	96378	22948
1688	3013	1085
2682	4687	1340
1147	1737	1278
7192	11860	3003
24240	39876	6867
1647	2599	317
415	520	533
3469	5453	2065
23180	39769	5164
6226	8676	2590
2092	3211	621
363	517	178
3558	6300	1239
1288	2149	539
13800	21253	4810

3306	5174	1409
1434	2290	1477
1022	1423	888
89	213	42
3631	6070	1529
829	1617	426
2831	4496	1990
4523	7670	3143
6759	8565	4751
83	91	19
7854	14491	3148
3820	5449	3680
7183	11074	2909
96	101	251
2364	3433	724
1317	2178	1313
6843	10455	3786
387	615	305
705	1101	505
522	955	259
9117	14204	4441
574	815	608
4122	6634	2511
22656	42144	10570
777	949	277
4317	6488	2733
668	896	1007
2068	3450	1718
5196	8038	4611
2794	4786	1442
22327	32869	7630
354	393	171
747	1443	393
21860	33824	8376
19313	33008	17809
19938	32044	12699
1959	3508	1022
17506	30408	9211
7439	12516	2419
10103	17031	11112
30286	39905	40011
3205	5604	1295
13308	21590	10043
28	72	93
2173	3350	1526
4693	7923	1653
15999	26349	5541
1393	2235	1152
14541	24016	6096
100	89	159
137414	209990	147140

1696	2188	335
1566	2240	1322
6070	9699	1984
25092	32251	40199
10357	16943	3697
4603	6866	1515
5214	8878	1719
4592	7008	4112
3644	6240	1085
12649	16859	21906
19	30	19
282	505	391
4016	6257	1874
258	514	172
39900	62463	27910
5473	8023	3231
3256	4979	1772
1187	2145	687
235	427	43
3028	4228	2684
1603	2402	1472
2992	5001	1122
12	34	139
5655	9233	1227
7137	8870	3871
1303	2110	1040
5320	8023	1822
3371	5441	1739
204	320	152
1988	3432	954
11583	18820	3942
3564	5817	1280
8534	12614	3095
13095	23009	6609
1757	3104	1522
42562	62154	13629
3727	6455	2645
1157	690	418
448	681	287
1509	3257	2211
7303	12302	5841
5401	8464	3819
5318	8371	4315
805	1139	228
2893	5648	1772
1771	2969	2231
213	218	177
7070	9908	2833
1650	2761	765
748	1417	482
4719	8156	2100

1905	2683	861
4624	7749	1994
2517	4154	3427
13739	21518	12973
3798	6407	1332
2975	4584	1362
1803	2938	669
991	1697	638
521	1001	417
214	396	409
307	228	168
2	0	0
13408	20316	9130
1810	2575	858
4459	7359	1793
1989	2570	1290
1306	1662	1421
7594	12099	5335
47	64	61
1095	1858	582
2995	4967	1920
302	474	193
7162	11590	5298
21052	33285	7401
1904	2465	901
779	1151	668
4079	5213	4367
1948	2998	1160
571	920	272
725	1151	270
4905	7567	4363
12105	17854	9280
1074	2270	330
749	1367	208
2243	3685	1187
1665	2233	1605
1280	2046	1194
4283	8761	1083
1668	2588	2034
1997	3152	1173
2105	3548	1402
758	1254	275
1020	1358	869
5409	8390	3287
309	223	167
1857	3398	797
10947	18914	3054
5315	8121	5218
804	1284	402
10845	17486	4370
4314	7079	2112

2346	3355	1993
1227	2157	529
5728	9506	2461
3664	5960	1139
67	105	0
3809	5583	2623
368	582	300
2430	3864	3113
1612	2706	575
2510	4135	864
1117	1611	365
2794	4070	1850
54969	85124	11478
5776	9906	2266
2554	4270	1976
1652	2895	729
4252	6594	4037
969	1725	366
1416	1677	1008
5831	6996	4640
15072	25355	3031
4201	7342	2544
3548	5469	815
8886	10369	9373
613	932	589
6733	10537	2988
368	400	419
397	498	404
310	444	240
7341	11272	2900
1934	3310	1090
52483	75936	11527
6825	11321	3843
2967	5194	1240
28022	42588	36546
14509	23877	7819
4885	7054	2712
9783	15929	2945
11126	18943	9424
152	160	115
2043	3226	518
5330	7972	1680
8541	13593	7177
14283	22345	4942
14792	24552	6033
2780	4064	1287
1064	2248	820
693	1352	2235
1859	2409	1855
3355	4996	1999
43512	72042	30989

6241	10006	2457
1349	2262	677
3553	6160	1280
2535	4257	1080
29478	47364	15748
658	1101	408
2094	3338	1060
27	36	4
1923	3182	828
9126	14690	4169
6132	9311	4477
1575	2193	1339
597	881	705
3453	6416	3103
9383	15703	4825
4301	6283	1837
4719	8511	1847
32736	53887	13900
2465	4004	1002
2702	4018	1586
1050	1617	788
1443	2457	666
20205	30983	7010
7	21	30
1867	3603	894
656	836	855
257	403	195
7777	11693	8183
4975	7623	2741
658	1001	187
463	627	313
1071	1605	1398
714	985	486
273	456	231
2064	3025	1009
3122	5098	1572
4320	6746	2901
3112	5100	1883
4525	6540	5027
44355	63500	71495
4212	5673	3151
4973	7878	4076
1606	2698	727
2293	3476	955
81	196	49
208	270	50
377	567	145
1487	2442	1469
136	263	110
28096	38304	23708
9479	15171	3549

1799	3054	1415
12449	19711	6792
392	354	229
45	56	10
1117	1703	701
2438	3763	1143
2812	3925	3564
1038	2044	552
4483	7554	1825
2742	4852	2300
1632	2806	766
3387	5469	1499
1816	3095	623
1797	2365	1038
1546	1992	1070
3138	4742	1001
2353	3787	1364
6989	10562	7998
1784	2945	925
1409	2429	852
2269	3228	1627
2838	5336	993
8475	15149	5268
4092	7019	1702
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0.473093164	-1.079803781	5.16E-11	4.32E-09
0.405097724	-1.303658116	5.80E-11	4.83E-09
0.437047082	-1.19413939	5.92E-11	4.86E-09
0.41607319	-1.265090764	5.92E-11	4.86E-09
2.030391792	1.021758142	5.93E-11	4.86E-09
2.312023234	1.209155896	7.23E-11	5.89E-09
0.52465578	-0.930556894	7.67E-11	6.21E-09
0.491244834	-1.02548586	7.78E-11	6.26E-09
0.375635372	-1.412595172	8.03E-11	6.42E-09
2.417325251	1.273411601	8.18E-11	6.51E-09
0.491380534	-1.025087389	8.35E-11	6.60E-09
2.548400572	1.349592066	9.78E-11	7.69E-09
0.529408794	-0.917545934	1.06E-10	8.28E-09
0.466618036	-1.099686024	1.12E-10	8.69E-09
2.251200772	1.170694729	1.27E-10	9.74E-09
0.494476238	-1.0160269	1.26E-10	9.74E-09
2.360177491	1.238895358	1.43E-10	1.09E-08
0.537534375	-0.895571079	1.53E-10	1.17E-08
1.869557077	0.902696517	1.56E-10	1.18E-08
0.42990013	-1.217926548	1.67E-10	1.25E-08
0.55724918	-0.843605505	1.76E-10	1.32E-08
0.539616487	-0.889993666	1.96E-10	1.46E-08
1.894967528	0.922173127	2.01E-10	1.49E-08
2.006344703	1.004569492	2.24E-10	1.65E-08
1.907377404	0.931590332	2.27E-10	1.67E-08
0.547241747	-0.869749803	2.36E-10	1.73E-08
0.49758717	-1.006978809	2.47E-10	1.79E-08
0.495584539	-1.012796915	2.59E-10	1.87E-08
0.56123852	-0.833314064	2.66E-10	1.89E-08
0.541848558	-0.884038407	2.66E-10	1.89E-08
0.432502923	-1.209218213	2.64E-10	1.89E-08
1.909758618	0.933390302	2.74E-10	1.94E-08
0.562638123	-0.829720786	3.40E-10	2.39E-08
0.630788706	-0.664771265	3.44E-10	2.41E-08
0.495726046	-1.012385034	3.82E-10	2.66E-08
0.527571208	-0.922562262	3.84E-10	2.67E-08

1.9020832	0.927580353	3.87E-10	2.67E-08
0.44074767	-1.181975152	3.92E-10	2.69E-08
3.981245427	1.99321981	4.26E-10	2.91E-08
0.552455131	-0.856070797	4.89E-10	3.32E-08
0.436350305	-1.196441288	5.24E-10	3.55E-08
0.552085752	-0.857035726	6.18E-10	4.16E-08
1.82006901	0.863993153	6.52E-10	4.37E-08
0.336973219	-1.569294157	6.65E-10	4.44E-08
0.559576579	-0.837592514	6.83E-10	4.54E-08
0.467988346	-1.095455491	7.27E-10	4.80E-08
0.437111565	-1.193926545	8.25E-10	5.43E-08
7.386023387	2.884797831	8.38E-10	5.49E-08
0.538257402	-0.893631841	8.44E-10	5.50E-08
0.518286035	-0.948179573	9.17E-10	5.95E-08
3.08621743	1.625839706	9.62E-10	6.21E-08
0.54157427	-0.884768896	9.90E-10	6.36E-08
0.518559473	-0.947418634	1.00E-09	6.40E-08
2.024953309	1.017888643	1.31E-09	8.34E-08
0.387342702	-1.368317538	1.33E-09	8.46E-08
1.794444158	0.843537028	1.36E-09	8.61E-08
0.494438657	-1.016136553	1.44E-09	9.05E-08
1.830472013	0.872215715	1.46E-09	9.14E-08
0.536016873	-0.899649679	1.48E-09	9.20E-08
0.508939341	-0.97443438	1.71E-09	1.06E-07
0.523468371	-0.933825725	1.79E-09	1.10E-07
0.549056865	-0.86497252	2.21E-09	1.36E-07
0.242888859	-2.041631777	2.39E-09	1.46E-07
0.543539598	-0.879542952	2.42E-09	1.47E-07
0.469741835	-1.090060011	2.58E-09	1.57E-07
1.886033902	0.915355609	2.77E-09	1.67E-07
0.523703459	-0.933177962	2.92E-09	1.76E-07
1.802876281	0.850300398	3.34E-09	2.00E-07
1.938055027	0.954609533	3.63E-09	2.17E-07
0.501732291	-0.995010304	3.69E-09	2.19E-07
1.920450369	0.94144468	3.83E-09	2.26E-07
0.533172792	-0.907324933	3.86E-09	2.28E-07
0.528702084	-0.91947308	4.14E-09	2.43E-07
0.56759623	-0.817063087	4.51E-09	2.63E-07
2.321783827	1.215233654	5.03E-09	2.93E-07
1.892475174	0.920274374	5.34E-09	3.09E-07
0.547137329	-0.870025107	5.84E-09	3.37E-07
0.600963442	-0.734650864	6.36E-09	3.66E-07
1.867184172	0.900864236	7.31E-09	4.19E-07
0.537815863	-0.894815786	7.36E-09	4.20E-07
1.781292592	0.832924511	7.72E-09	4.38E-07
0.541942272	-0.883788912	7.93E-09	4.49E-07
0.59553814	-0.747734189	9.13E-09	5.14E-07
0.436612588	-1.195574371	9.32E-09	5.23E-07
2.929970253	1.550886017	1.07E-08	5.98E-07
0.537810279	-0.894830766	1.07E-08	5.98E-07
0.523931737	-0.93254924	1.08E-08	5.98E-07

1.821914783	0.865455481	1.21E-08	6.70E-07
0.53826258	-0.893617963	1.23E-08	6.76E-07
2.242186905	1.164906544	1.26E-08	6.88E-07
0.557601554	-0.842693513	1.31E-08	7.15E-07
0.482945025	-1.050069123	1.45E-08	7.90E-07
0.494974739	-1.014573195	1.53E-08	8.26E-07
0.5679888	-0.816065613	1.63E-08	8.75E-07
0.526571759	-0.925297947	1.62E-08	8.75E-07
0.567771907	-0.816616628	1.69E-08	9.03E-07
0.568814412	-0.813970077	1.70E-08	9.04E-07
1.778169017	0.83039246	1.72E-08	9.15E-07
2.01741375	1.012506995	1.76E-08	9.34E-07
1.855595051	0.891881904	1.79E-08	9.46E-07
0.342362738	-1.546402406	1.87E-08	9.82E-07
1.847229658	0.885363242	1.93E-08	1.01E-06
1.79127754	0.840988885	2.00E-08	1.04E-06
1.772809512	0.826037527	2.08E-08	1.08E-06
0.446344848	-1.16376932	2.44E-08	1.26E-06
0.549291073	-0.864357248	2.62E-08	1.35E-06
1.792545831	0.842010006	2.73E-08	1.40E-06
1.787378289	0.837845005	3.10E-08	1.59E-06
3.638315978	1.863270842	3.15E-08	1.61E-06
1.853535711	0.890279911	3.54E-08	1.80E-06
0.551740426	-0.857938404	3.54E-08	1.80E-06
0.572532307	-0.804570991	3.59E-08	1.81E-06
0.578342736	-0.790003382	3.94E-08	1.98E-06
1.675100274	0.74424746	4.56E-08	2.29E-06
0.607715091	-0.718532976	4.72E-08	2.36E-06
0.550209687	-0.861946555	4.78E-08	2.38E-06
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0.63448433	-0.656343562	4.84E-08	2.39E-06
0.543696998	-0.879125231	5.08E-08	2.50E-06
0.508515635	-0.975635962	5.25E-08	2.58E-06
0.510268603	-0.970671221	5.29E-08	2.58E-06
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0.528945531	-0.918808929	5.45E-08	2.64E-06
1.678504861	0.747176715	5.52E-08	2.66E-06
0.594986148	-0.749072014	5.85E-08	2.80E-06
1.773345261	0.826473449	5.84E-08	2.80E-06
1.784304736	0.83536203	6.00E-08	2.86E-06
0.538547418	-0.892854717	6.06E-08	2.88E-06
0.559368992	-0.838127813	6.55E-08	3.11E-06
2.03626091	1.025922429	6.61E-08	3.12E-06
0.553553434	-0.85320551	6.69E-08	3.15E-06
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0.566399982	-0.820106875	1.48E-07	6.60E-06
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1.712607699	0.776194716	1.55E-07	6.84E-06
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1.721646363	0.783788835	2.31E-07	9.63E-06
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0.579298229	-0.78762184	2.85E-07	1.17E-05
1.669429372	0.739355059	2.91E-07	1.19E-05
0.442656473	-1.175740576	2.93E-07	1.20E-05
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0.608709489	-0.71617424	3.11E-07	1.27E-05
1.75041559	0.807697493	3.15E-07	1.28E-05
0.535949625	-0.899830691	3.18E-07	1.29E-05
1.880285305	0.910951586	3.59E-07	1.45E-05
1.795918528	0.844721903	3.61E-07	1.45E-05
1.6962309	0.762332571	3.64E-07	1.46E-05
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0.617545219	-0.695383315	3.66E-07	1.46E-05
0.528992767	-0.918680099	3.70E-07	1.47E-05
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0.491808628	-1.023831049	3.83E-07	1.51E-05

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0.710117099	-0.493871148	3.96E-07	1.56E-05
0.597122548	-0.743901048	4.09E-07	1.60E-05
0.554622479	-0.850422005	4.13E-07	1.62E-05
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0.502072211	-0.99403322	4.30E-07	1.67E-05
0.598193262	-0.741316435	4.32E-07	1.68E-05
0.664516169	-0.589623791	4.53E-07	1.75E-05
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0.59414081	-0.751123209	4.65E-07	1.78E-05
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0.49778222	-1.006413396	4.66E-07	1.78E-05
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0.661773537	-0.595590494	5.06E-07	1.92E-05
0.62388728	-0.6806427	5.13E-07	1.94E-05
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1.757695285	0.813684986	5.40E-07	2.03E-05
1.670766782	0.740510366	5.48E-07	2.06E-05
1.715182335	0.778361952	5.67E-07	2.12E-05
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0.590081179	-0.761014651	6.18E-07	2.29E-05
0.601215847	-0.734045058	6.30E-07	2.33E-05
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0.607152506	-0.719869152	6.42E-07	2.35E-05
1.661626199	0.732595869	6.43E-07	2.35E-05
0.521996902	-0.937886852	6.43E-07	2.35E-05
0.61931887	-0.69124569	6.64E-07	2.42E-05
1.661524286	0.732507381	6.82E-07	2.48E-05
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0.613224383	-0.705513033	9.89E-07	3.48E-05
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0.61608221	-0.698805217	1.11E-06	3.82E-05

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0.611403457	-0.709803386	1.19E-06	4.07E-05
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0.566100524	-0.820869835	1.32E-06	4.48E-05
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0.587296146	-0.767839925	1.41E-06	4.74E-05
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0.592419497	-0.755308974	1.46E-06	4.88E-05
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0.493633941	-1.018486501	1.66E-06	5.45E-05
0.626560181	-0.674475008	1.68E-06	5.51E-05
1.634126608	0.708519764	1.69E-06	5.54E-05
0.605681221	-0.723369413	1.70E-06	5.55E-05
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0.620136549	-0.689342174	1.82E-06	5.91E-05
0.622720512	-0.683343293	1.87E-06	6.04E-05
0.637646872	-0.649170413	1.87E-06	6.04E-05
0.444221288	-1.170649563	1.88E-06	6.07E-05
0.589339543	-0.762829024	1.89E-06	6.08E-05
1.661751555	0.732704704	1.90E-06	6.09E-05
2.038966923	1.027838372	1.92E-06	6.14E-05
2.171425852	1.11864269	1.94E-06	6.19E-05
0.474422013	-1.075757143	1.94E-06	6.19E-05
1.735604797	0.795438478	1.97E-06	6.24E-05
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1.627428009	0.702593725	2.01E-06	6.36E-05
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1.684641548	0.752441653	2.16E-06	6.77E-05
1.719353465	0.781866165	2.21E-06	6.90E-05
0.462700547	-1.11184929	2.24E-06	6.97E-05
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0.469836747	-1.08976854	2.47E-06	7.62E-05
0.56718759	-0.818102127	2.55E-06	7.85E-05
0.595796526	-0.747108384	2.55E-06	7.85E-05

0.6573369	-0.605295122	2.72E-06	8.33E-05
1.896659357	0.923460592	2.73E-06	8.35E-05
1.674976166	0.744140567	2.76E-06	8.44E-05
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0.58547237	-0.772327007	2.83E-06	8.61E-05
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0.621368839	-0.6864782	2.99E-06	9.03E-05
0.392481568	-1.349303192	3.00E-06	9.04E-05
0.611815709	-0.708830946	3.09E-06	9.29E-05
1.71724459	0.780095539	3.12E-06	9.35E-05
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0.587472263	-0.767407357	3.14E-06	9.40E-05
0.55173165	-0.857961352	3.20E-06	9.53E-05
0.48784762	-1.035497505	3.45E-06	0.000102375
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0.628951747	-0.668978756	3.52E-06	0.000104133
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1.59982933	0.677918006	5.24E-06	0.000150176
0.675852831	-0.565218965	5.25E-06	0.000150186
0.497560201	-1.007057004	5.33E-06	0.000152132
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1.577044028	0.657222937	8.00E-06	0.000212964
0.584266029	-0.775302686	8.25E-06	0.000218654
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0.630225995	-0.666058832	8.68E-06	0.000227546
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