

University of Groningen

Undifferentiated Embryonic Cell Transcription Factor 1 Regulates ESC Chromatin Organization and Gene Expression

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chromosome	gene name	NCBI gene ID	Log2 expression levels						RankProd_PFP
			wt ES cells		UTF1 KD ES cells #1		UTF1 KD ES cells #2		
			A	B	A	B	A	B	
6	0610006L08Rik	76253	7.337179813	7.385137972	7.810661006	7.807636099	7.858112447	7.678911351	0.002779221
11	0610010F05Rik	71675	7.647400907	7.787869238	8.066546183	8.097444594	8.07568715	8.076366808	0.011511218
5	0610040B10Rik	67672	6.954461366	7.116659775	7.44916344	7.481196101	7.238787714	7.467822019	0.008856401
19	1110004P15Rik	NA	10.08270216	10.31829185	11.26580297	10.99365213	11.04067546	11.09438215	0
4	1110007M04Rik	68493	9.153447163	9.217614002	9.492915972	9.497683827	9.648841053	9.712264867	0.004852564
14	1110008P08Rik	NA	7.198956753	7.183063232	7.500940922	7.40425312	7.542219273	7.842210076	0.008863085
1	1110048P06Rik	NA	7.697776817	7.610964427	8.097444594	8.098005664	7.963220104	8.160931564	0.002793734
12	1110057K04Rik	68832	8.360234989	8.408617941	8.815628943	8.781115745	8.948228012	8.928182253	0.000947368
15	1110064N10Rik	NA	11.43129485	11.55506355	12.05475344	11.9035246	12.03752349	12.05475344	0.000416667
14	1190002H23Rik	66214	6.993987283	7.24472606	7.441025477	7.696631734	7.505344759	7.418094389	0.006279208
16	1500031L02Rik	66994	8.174757906	8.249313331	8.513788606	8.590270561	8.560186929	8.511498796	0.0201875
8	1500041N16Rik	67836	8.246216424	8.36449287	8.656509556	8.732401406	8.748174477	8.630767923	0.006837429
16	1600021P15Rik	239796	9.285151853	9.182641281	9.737692001	9.617397426	9.750345367	9.741071024	0.001173745
2	1700007K13Rik	69327	8.568710456	8.659582538	9.173605651	9.23014009	9.245601026	9.201006004	0.000103093
X	1700008I05Rik	71841	6.708235987	6.599820951	7.057218168	6.905903335	6.965180937	7.01798713	0.019860202
19	1700011F14Rik	75645	6.819287585	6.495173785	7.037392263	7.178249722	6.984422784	7.255532155	0.001993865
17	1700022C21Rik	76416	7.095686745	7.223843579	7.544948682	7.580008536	7.545880861	7.467647293	0.008456942
10	1700025K23Rik	66337	7.925349653	7.939460651	8.801549052	8.694019612	8.698391452	8.726347741	0
1	1700029F09Rik	75623	10.49564227	10.33493553	10.73447404	10.79491797	10.74962608	10.68790169	0.022685579
4	1700029G01Rik	66938	7.721755512	7.79241945	8.051631192	8.238826759	8.104275566	8.040468629	0.013971264
18	1700034H14Rik	67105	8.382889001	8.203043526	8.691548807	8.637382075	8.801549052	8.718940401	0.003619952
2	1700041B20Rik	73338	8.515844857	8.903547377	9.255078405	8.967358169	9.170517943	9.285151853	0.002027356
11	1700042O10Rik	73321	6.946660749	6.947722886	7.241893711	7.160880531	7.252130898	7.293420443	0.046368512
9	1700048O20Rik	69430	6.950616869	7.056999326	7.537246122	7.469388321	7.258947271	7.337958872	0.005111814
X	1700123J19Rik	73614	7.220868309	7.427520357	8.11578189	8.161208658	8.041530689	8.204169493	0
16	1810007M14Rik	67367	6.746859541	6.675010041	7.060106231	6.964442057	6.966823031	7.011349604	0.044408612
10	1810008A18Rik	108707	7.72572179	7.682404556	7.991455447	8.154333622	8.269368575	8.176764936	0.002184438
16	1810013L24Rik	69053	7.858810985	7.897270593	8.256316201	7.969251804	8.059253291	8.403657154	0.04961377
7	1810020D17Rik	66273	8.469920644	8.684872753	9.089824877	8.905260683	9.099195327	9.059710531	0.001588629
7	1810026B05Rik	69170	8.40720689	8.522856732	8.609279992	8.6038619	8.908197128	9.028751016	0.035651663
4	1810030N24Rik	66291	6.705639349	6.927294406	7.227639872	7.135910717	7.08251249	7.089115724	0.028263272
14	1810034K20Rik	67881	9.263555458	9.366873534	9.743973078	9.808617962	10.02816561	9.84469805	0.00029375
8	1810047C23Rik	192169	8.801549052	8.556013568	9.206472122	9.285151853	9.197681746	9.034802912	0.000698276

19	1810055E12Rik	67894	7.645076947	7.570174245	7.84980863	8.113514781	7.89520648	7.931758647	0.01794517
19	1810059G22Rik	67706	8.282323204	8.29343285	8.567196879	8.547526362	8.625777964	8.555579411	0.049533221
6	2010012C16Rik	66441	8.022071075	8.095381392	8.355542014	8.467763916	8.456080975	8.574634302	0.004573304
11	2010316F05Rik	67939	8.463537974	8.200642243	8.728541312	8.86788529	8.927312076	9.025425385	0.000212329
13	2210016F16Rik	70153	6.781186008	6.679438834	7.073694384	7.008545395	7.057792922	7.157401463	0.015497908
7	2210410P13Rik	NA	7.081532491	6.987483921	7.339753493	7.174242837	7.480670727	7.317093219	0.049116653
2	2310003C23Rik	76425	9.888231235	9.956986217	10.24885334	10.24231078	10.20540041	10.18609513	0.038130806
11	2310004I24Rik	66358	8.55922224	8.670404392	8.945371106	9.03761825	8.858327449	8.785676456	0.045879235
4	2310005N01Rik	70088	7.962119636	7.978846268	8.263045271	8.242860902	8.357872728	8.200006247	0.041205776
1	2310007B03Rik	71874	6.753301508	6.851173738	7.206097911	7.14132482	7.242088222	7.169206012	0.006546875
16	2310043M15Rik	71930	7.084575572	7.185110728	7.746298139	7.435307833	7.786263229	7.897905864	0.000169355
19	2310043N10Rik	66961	8.075047475	8.153731679	8.843180279	8.66326689	8.613543513	8.866378687	6.25E-05
12	2310044G17Rik	217732	8.319102294	8.471085109	8.950488818	8.941838513	9.142494006	9.035745218	7.06E-05
9	2310046O06Rik	78323	7.485249176	7.423526591	7.763441094	7.745340263	7.749801546	7.748144725	0.038352552
3	2310068J10Rik	108992	6.17908921	6.214708233	6.59034557	6.597312286	6.279056398	6.496134303	0.044024713
17	2410011O22Rik	NA	8.141352778	8.194877552	8.503599165	8.494357483	8.591922857	8.529316458	0.011309677
12	2410016O06Rik	71952	10.38888587	10.26164246	10.63899591	10.62670095	10.78711122	10.7666595	0.008164021
3	2410019A14Rik	229937	9.05829188	8.910029588	9.289631346	9.382127226	9.367714562	9.487642538	0.005559006
2	2410042D21Rik	72425	7.358852415	7.334242148	7.637124078	7.725237987	7.681003818	7.669264013	0.020170213
15	2410075B13Rik	223648	7.714402621	7.408574571	7.833028115	7.944196692	8.141615209	8.078942772	0.002776316
14	2410129H14Rik	76789	8.239030169	8.390363098	8.674492786	8.924896325	8.679743348	8.737358413	0.002331445
17	2410137M14Rik	76797	8.543198918	8.614214287	9.129835882	9.008058703	9.323032305	9.235747449	0.00014
3	2500003M10Rik	66511	7.659758629	7.732368416	8.101366744	7.973207012	8.010469136	7.930799374	0.03231677
12	2610015J01Rik	NA	8.7342017	8.967358169	9.389262129	9.027101674	9.034802912	9.227557	0.030980063
16	2610015P09Rik	212153	8.675066159	8.688875467	9.131199676	9.005219512	9.231303882	9.163296127	0.001797428
14	2610028A01Rik	72400	7.582163962	7.765815131	7.758472115	8.010256662	8.007972888	8.110402597	0.047422451
18	2700062C07Rik	68046	8.822159702	8.874891991	9.249050071	9.238033756	9.256877525	9.232868177	0.005417537
5	2700092H06Rik	78325	10.48461951	10.22678212	10.63583904	10.76778601	10.78552683	10.79174812	0.007307263
12	2810002N01Rik	68020	8.543983511	8.560186929	9.074118008	9.100422441	9.171432321	9.064365112	0.00020979
11	2810021J22Rik	69944	7.143974685	7.039953927	7.452540272	7.60339436	7.667858565	7.631185102	0.000761702
4	2810055E05Rik	NA	8.516214798	8.436719762	8.730654817	8.668671899	9.059032282	8.930085506	0.011917981
17	2810405J04Rik	72722	10.07410823	10.47482461	10.56208041	10.73447404	10.64381132	10.52532658	0.022271752
11	2810408A11Rik	70419	7.227139453	7.587304654	7.827109059	7.83207682	7.574932732	7.637273761	0.037098456
4	2810432D09Rik	69961	8.674359487	8.573546776	9.070837426	8.953903047	9.055395079	8.964099785	0.00667052
19	2810441K11Rik	68642	8.121568559	8.011880243	8.416278337	8.297124016	8.54472665	8.473263401	0.011252019
12	2810455K09Rik	72805	6.420963322	6.541748545	6.826495492	6.808545789	6.693968005	6.746175388	0.047960717

9	2900078C09Rik	73053	7.655525248	7.714615655	7.964136401	7.885761535	8.155599586	8.201416922	0.011878165
11	3000004C01Rik	70218	9.758046595	9.720857918	9.971797172	10.08327349	10.10234775	10.03395384	0.033573589
6	3010003L21Rik	109163	6.705764574	6.902885908	7.149092765	7.14123424	7.166970118	7.134913828	0.016387618
11	3010026O09Rik	68067	8.848035447	8.694749731	9.105834043	9.244071964	9.00784056	9.044675626	0.021551345
7	3100004P22Rik	68035	10.00387681	9.737692001	10.18259188	10.13620476	10.27221801	10.12384185	0.037299038
2	3110001A13Rik	66540	8.313383785	8.192798112	8.675882109	8.789191576	8.651858463	8.607665257	0.002786458
9	3300001A09Rik	75697	7.682001024	7.7673683	8.243661386	8.256316201	8.440593836	8.334491749	0.000148515
11	3300001P08Rik	67684	10.31460008	10.39810431	10.79381649	10.80153846	10.86002064	10.93334762	0.000771186
X	4632404H22Rik	78755	8.173892672	8.345899301	8.920231536	8.875199605	8.865095851	8.935852854	4.05E-05
11	4632419I22Rik	74038	7.964136401	8.047621799	8.189845772	8.35180316	8.449072186	8.489613966	0.012526074
4	4732473B16Rik	100342	7.17042317	7.314557781	7.452055287	7.542639131	7.628924881	7.51147751	0.049789782
10	4733401N12Rik	NA	8.544322051	8.611645851	9.004927323	8.683826963	8.990220769	9.029222203	0.016546667
15	4833422F06Rik	NA	7.986870867	8.038234606	8.485329829	8.606787389	8.632861657	8.668022455	0.000149533
11	4921530G04Rik	70956	8.035286854	7.978415216	8.753712604	8.748174477	9.000839076	8.910029588	0
17	4930432O21Rik	74670	7.334069641	7.479005452	7.741747859	7.711329314	7.666845935	7.807399256	0.023599073
14	4930444M15Rik	75789	7.342133701	7.380571221	7.917757927	7.640461138	7.825980045	7.836741635	0.002094955
15	4930461P20Rik	78244	11.0925602	11.06256025	11.35573407	11.36964667	11.40079925	11.47190807	0.02406099
2	4930519N13Rik	78177	10.4384157	10.28563945	10.77700224	10.71673148	10.75505747	10.587129	0.015352941
9	4930550C14Rik	75311	7.174054196	7.183438939	7.560964406	7.519634191	7.397234878	7.378833704	0.047944539
11	4930578N18Rik	78215	7.681290911	7.858810985	8.0970718	8.095916051	8.082820445	8.229938672	0.012880597
X	4933402E13Rik	74437	7.682323794	7.565925362	8.028013895	8.174600429	8.085164674	7.98056864	0.002096774
11	4933407N01Rik	66753	8.217715475	8.180033413	8.477150273	8.586625034	8.430016229	8.578501834	0.025301354
8	4933411K20Rik	66756	9.257320243	9.106950097	9.628053765	9.706014555	9.657538195	9.586384902	0.001460751
6	4933424B01Rik	71177	7.866857958	7.965895488	8.251194324	8.252635456	8.380203227	8.350256486	0.006232143
12	4933437F05Rik	71275	6.622834956	6.348121553	6.681727394	6.689847328	6.950186125	6.911182609	0.032467559
16	5330426P16Rik	68190	6.523994222	6.540906516	6.988518549	6.896000698	6.846571156	6.790688655	0.013750361
1	5630401D24Rik	71449	8.370926376	8.5550751	8.93192845	8.949830062	8.9792143	8.878880228	0.001291513
11	5730455P16Rik	70591	8.24647261	8.161809003	8.46084504	8.582091507	8.392233011	8.566008645	0.041044384
14	5730469M10Rik	70564	9.271985277	9.175439112	9.686837714	9.980476597	9.66369319	9.633615076	0.000446237
2	5730472N09Rik	108958	7.450388206	7.496178345	7.698522525	7.783677833	7.91463016	7.855525629	0.01872
19	5730596K20Rik	109168	7.040295272	7.117999516	7.30471263	7.291639512	7.542639131	7.466293453	0.028735768
4	6230416J20Rik	230376	8.356232135	8.245862084	8.8449613	8.887193295	8.892281226	8.859217469	0.000175
18	6330403M23Rik	109169	7.334689964	7.4220311	7.816268489	7.762456271	7.651412632	7.829131535	0.006236581
7	6330503K22Rik	101565	9.171432321	9.092617544	9.453536189	9.601348333	9.530446442	9.513516271	0.005725773
5	6330548G22Rik	76167	7.839127742	7.816268489	8.15956894	8.198573287	8.282323204	8.231408068	0.006171657
3	6330562C20Rik	76193	6.813052074	6.850563808	7.207630064	7.262477249	7.18277349	7.081304026	0.013446903

3	6330569M22Rik	229707	11.08345504	10.87982615	11.3340919	11.45705344	11.30748039	11.29981524	0.009981544
7	6430604K15Rik	269997	7.271160038	7.514107533	7.705847026	7.685581463	7.598093421	7.749056936	0.049592624
6	6720456B07Rik	101314	10.46329466	10.57684444	10.8874948	10.95894343	10.99818082	10.98887305	0.002338936
12	6720458F09Rik	328162	10.20276544	10.06080819	10.53445281	10.48814914	10.73320633	10.59002081	0.001678689
4	6720467C03Rik	68099	9.093487635	9.16161551	9.411005133	9.472873978	9.470157242	9.38583055	0.032881218
1	6820401H01Rik	75743	6.683807488	6.735294859	6.94189823	6.971252968	7.042901513	7.124954156	0.032632066
18	8030462N17Rik	212163	6.505158209	6.791497919	7.073134241	7.064715062	7.096459658	7.111094007	0.002446575
X	8030474K03Rik	382231	7.351005345	7.348713429	8.151523236	8.053101143	8.012897727	7.901915331	1.72E-05
14	9130227C08Rik	219094	8.541999165	8.73639263	9.222398928	9.179744636	8.987150089	9.060623165	0.001289377
1	9330107J05Rik	NA	8.660619302	8.728541312	9.424433713	9.153447163	9.54747806	9.577293876	0
1	9430016H08Rik	68115	9.218275735	9.275808519	9.436783384	9.513862444	9.620999334	9.612916261	0.041468947
11	9530066K23Rik	214112	6.996507384	7.121055724	7.430522285	7.428396123	7.566283395	7.539713908	0.002549598
1	9630055N22Rik	226844	8.009740094	8.243216908	8.40720689	8.303990603	8.490037565	8.599942822	0.029129689
14	9930012K11Rik	268759	7.314190186	7.370081756	7.645687465	7.7371607	7.729313433	7.76477921	0.008116814
10	A130042E20Rik	216119	6.652630711	6.586470416	6.925667084	6.790585814	7.02949198	6.981088721	0.032856707
13	A330102I10Rik	77920	6.509354833	6.640606829	6.978436111	6.918858956	6.98906641	7.027453302	0.004551648
15	A4galt	239559	6.741391543	6.79170012	7.266947181	7.11005568	6.977676751	7.069717573	0.016386486
2	A530057A03Rik	215456	9.128502994	9.177205382	9.56739454	9.446450829	9.553520162	9.429385704	0.015183989
17	A930015D03Rik	77810	6.962225025	7.111464835	7.463797198	7.387661448	7.616883445	7.764158631	5.00E-04
15	A930016P21Rik	68073	7.481559454	7.336282976	7.746111782	7.748144725	7.856483861	7.834291352	0.006687739
16	Abcf3	27406	8.824055643	8.910425833	9.16161551	9.103297073	9.27087662	9.228488103	0.02509215
9	Abhd5	67469	8.091530586	7.811392755	8.383149541	8.320876029	8.473263401	8.306321225	0.003515513
9	Acaa1	NA	10.52714042	10.54304974	10.79721851	10.90694538	10.81390196	10.88628759	0.027373626
3	Acadm	11364	9.261419576	9.22394726	9.685073442	9.764849106	9.827531784	9.882475084	0.000222222
2	Acot8	170789	8.786464855	8.617658406	8.996191225	9.031258524	9.087286282	9.07169477	0.016469169
2	Ada	11486	7.738207749	8.058195498	8.44670361	8.303490017	8.395871018	8.265534707	0.001919003
1	Adam23	23792	9.278034896	9.365483078	9.776621288	9.865575322	9.791541452	9.630307967	0.002012195
4	Adfp	11520	8.811874349	8.872775411	9.232041004	9.314085885	9.525773153	9.519360719	0.000214765
18	Adrb2	11555	7.349661383	7.411286377	7.764015719	8.029948385	7.871751892	7.84914622	0.000686957
14	AF067061	236546	8.19091394	7.96612169	8.592318188	8.625777964	8.958416594	8.967784104	1.75E-05
11	Aff4	93736	6.802577425	6.99682736	7.122540031	7.237649195	7.231878439	7.185776421	0.046155979
2	Agps	228061	8.989451081	9.062009501	9.486509235	9.562333293	9.56554398	9.374265566	0.001228137
19	Ahnak	66395	7.634957379	7.698436477	8.561815677	8.633620571	8.507279751	8.473046109	0
1	AI597479	98404	9.119019161	9.00909398	9.370221134	9.593486462	9.340521468	9.416684736	0.010486043
6	AI894139	101197	6.564005811	6.665481633	7.003961629	6.823352344	6.828677302	7.091921143	0.02562514
2	AK030645.1	74182	7.707544109	7.70822328	8.275702989	8.397358751	8.283363457	8.129936625	0.000198473

2	Ak1	11636	8.425622141	8.29644847	8.651201462	8.586127927	8.674492786	8.766329033	0.033819277
14	Akap11	219181	7.113201018	6.988909421	7.402645482	7.397234878	7.392777162	7.461611633	0.010810767
11	Aldh3a1	11670	8.011438306	7.881598314	8.434517792	8.198808197	8.408617941	8.454120683	0.003084788
15	Alg12	223774	6.854332007	6.909297198	7.110513504	7.363538257	7.234661862	7.272913179	0.011752773
3	Alg5	66248	9.738114801	9.882155383	10.38562261	10.41503766	10.4506759	10.32476489	0.000150943
2	Alkbh3	69113	9.035131782	9.088909651	9.461866592	9.534225199	9.45264547	9.383772614	0.005495851
11	Alox12	11684	7.401045835	7.46669718	7.786263229	7.892661651	7.770937682	7.714402621	0.012498462
17	Angptl4	57875	8.205638654	8.42184598	8.895065096	8.822159702	8.90496878	9.0259034	0.000121212
9	Ankrd49	56503	9.074118008	9.43105305	9.903829579	9.748603618	9.865575322	9.828754721	0.000165217
16	Anks3	72615	6.7646535	6.645311294	7.013306778	7.095181633	7.038209293	7.01248399	0.019177522
9	Anxa2	12306	11.22550995	11.34525337	11.95425199	11.9877495	11.92466917	11.74180157	7.61E-05
5	Anxa3	11745	10.47482461	10.29279278	11.00049898	11.08962825	11.11636407	11.01195725	1.52E-05
8	Ap1g1	11765	7.112732612	7.229474972	7.402424687	7.542842314	7.493175648	7.560964406	0.022430952
16	Ap2m1	11773	9.811669831	9.657711437	10.03663086	10.14431156	10.26164246	10.14984522	0.004231818
12	Ap4s1	11782	8.523676493	8.456899223	8.917579684	8.906029532	8.998527869	9.017909319	0.0013213
2	Apip	56369	7.7237705	7.894136127	8.101178525	8.085660421	8.132440061	8.211561395	0.025433071
16	Apod	11815	7.51718048	7.533105156	8.030125952	7.989323547	8.006159433	7.878206726	0.001773463
17	Apom	55938	7.076638618	7.057792922	7.460574285	7.356721952	7.479415382	7.385137972	0.013047478
14	Appl1	72993	9.464852811	9.380641815	9.838388394	9.872021627	9.63433261	9.657538195	0.021204406
15	Arc	11838	8.096725236	7.949984156	8.412147222	8.383149541	8.321059999	8.494888267	0.00747786
11	Arf2	11841	9.212720884	9.080049907	9.808617962	9.963806169	10.07805728	10.12212332	0
2	Arfrp1	76688	9.211432769	9.160768442	9.517822533	9.511310492	9.401118328	9.481211803	0.041886099
7	Arhgap17	70497	10.37469706	9.998098605	10.65961044	10.55839072	10.72310854	10.61347181	0.002088757
9	Arih2	23807	10.587129	10.32476489	10.81829761	10.85528103	10.85216257	10.71524233	0.01375
11	Arl16	70317	8.391203044	8.422254998	8.764260229	8.816336418	8.999077962	8.837175494	0.002033333
17	Arl6ip2	56298	8.992637921	9.225340282	9.445232671	9.527421164	9.504536688	9.521721569	0.006435294
5	Arl6ip4	65105	9.904931991	9.80793621	10.19884344	10.30900006	10.26712775	10.26413593	0.004407572
9	Armc8	74125	7.600735183	7.569827823	8.033586578	8.207791872	8.078942772	8.055729092	0.000564356
7	Arntl	11865	7.156565665	7.026218649	7.407217148	7.357584403	7.474105557	7.449457798	0.021596107
1	Arpc5	67771	8.503599165	8.479821892	8.969542534	8.795205808	8.823181057	8.635396374	0.028261622
9	Arpp19	59046	8.658748167	8.493059537	8.778509187	8.85720859	8.947036562	8.961297252	0.035605108
4	Asah3l	230379	7.514799434	7.461166177	7.874082032	7.860126992	7.875504582	7.843317632	0.008069643
11	Asb3	65257	7.521599826	7.634778848	8.019333429	7.897497773	8.08941204	7.931499483	0.004420582
2	Asb6	72323	7.246130918	7.30790206	7.747894273	7.489908859	7.721453105	7.658751477	0.00845614
10	Ascc3	77987	8.917740621	8.89537046	9.332756188	9.206934433	9.293861347	9.142494006	0.017946545
7	Ascl3	56787	9.083815178	9.284828278	9.478603881	9.409495168	9.607620591	9.603418354	0.020305106

2	Ass1	11898	9.517822533	9.418211346	9.863432228	10.07021974	10.05721539	9.931321343	0.000547739
9	Aste1	66595	8.100463355	8.074250465	8.46100643	8.445450773	8.526260986	8.478530645	0.006058824
15	Atf4	11911	8.932478721	8.815628943	9.074346804	9.12116127	9.270476343	9.433259292	0.017141722
18	Atg12	67526	9.649437389	9.402101974	9.852905724	9.771136107	9.979744619	9.974128299	0.012146417
7	Atg16l2	73683	7.46003959	7.196442734	7.5493645	7.60149464	7.669558674	7.667288005	0.049875314
1	Atp1b1	11931	11.02036512	10.71524233	11.37862541	11.30667399	11.2108269	11.01069971	0.013050671
11	Atp2a3	53313	8.211922807	7.953842581	8.534567204	8.611152516	8.520916545	8.571956724	0.001283582
X	Atp6ap2	70495	7.531610109	7.703898543	7.869512251	7.995948459	7.959768329	7.874776215	0.03600878
15	Atp6v1c1	66335	9.466767097	9.480747584	9.77943906	9.768611233	9.722410112	9.820046964	0.037009671
2	Atp9a	11981	7.39715327	7.464364112	7.825092501	7.813054227	7.645822712	7.768872392	0.019403553
11	Atpaf2	246782	8.832786432	8.923131188	9.244071964	8.968062292	9.284484813	9.243793829	0.038638077
13	Atxn1	20238	6.979902287	6.961462231	7.342394957	7.354345162	7.357973317	7.317775252	0.008712544
15	AW549877	106064	9.96831575	10.08735489	10.53088083	10.65961044	10.69545687	10.53445281	0.000168142
5	B3bp	333789	10.60015979	10.73777158	10.92529197	10.9743519	11.06826487	10.96829833	0.030165787
16	B3gnt5	108105	8.225979447	8.368243579	9.081728431	9.167635441	9.010062064	9.101609826	0
12	Bag5	70369	8.371244494	8.217007895	8.670007542	8.622803508	8.659582538	8.60479707	0.015414804
12	Baz1a	217578	6.963967758	7.018561138	7.25954606	7.381319303	7.529952247	7.435307833	0.004354402
9	Bbs4	102774	7.790354803	7.927198383	8.052309582	8.190674583	8.295751792	8.111082511	0.040574565
3	Bbs7	71492	7.563211239	7.454207607	8.032279949	7.838391174	7.843793367	7.854676247	0.006801136
1	BC003331	226499	9.081728431	9.061808064	9.521167042	9.453536189	9.45117798	9.401836888	0.006599222
17	BC003965	214489	11.04699307	10.97042381	11.205289	11.38999195	11.37615619	11.3485128	0.027513661
2	BC003993	80744	7.008034528	6.940682144	7.340731597	7.293420443	7.254202135	7.286422344	0.024700913
13	BC016423	105203	6.98837229	7.034095411	7.591787801	7.568222218	7.528122284	7.533761495	0.000218543
19	BC016495	225994	7.077526895	7.278779366	7.552635146	7.576306912	7.600539481	7.564618856	0.005773663
11	BC017643	217370	7.070282989	7.177922953	7.434028656	7.492300881	7.51718048	7.528978037	0.00981113
11	BC023928	NA	10.59592918	10.73976191	11.22818571	11.09082288	10.90931478	11.04699307	0.004955224
8	BC025546	234728	8.444905847	8.605142288	8.880863285	8.903320881	9.116004588	8.995883517	0.002054381
17	BC032203	210982	10.84628191	10.58226654	10.97731256	10.98451948	11.22712716	11.02036512	0.02223747
9	BC038156	270135	7.116602572	7.020151882	7.32459344	7.502080913	7.456257219	7.426422057	0.0125586
1	BC049806	213056	7.35011988	7.327334809	7.845285731	7.952699233	7.768476022	7.844620453	0.000455497
17	BC052484	328783	7.592266849	7.709469792	8.172685592	8.141871336	7.961304196	7.931143725	0.0048
12	Bcap29	12033	8.013908352	8.075047475	8.870099513	8.910425833	8.586625034	8.547526362	1.67E-05
11	Bcas3	192197	10.67165643	10.7190763	11.28120508	11.31177324	11.22949866	11.09806411	0.000306748
6	Bcat1	12035	8.776445851	8.912481103	9.100422441	9.149066347	9.333150312	9.22394726	0.013523392
2	Bcl2l1	12048	7.220147958	7.299594302	7.484396919	7.676969383	7.503578161	7.57659812	0.03884572
X	Bcor	71458	8.281360139	8.334491749	8.849232062	8.643510437	8.863772937	8.810625463	0.000947581

3	Bdh2	69772	8.425226433	8.535447179	8.888862898	8.768949099	8.770179331	8.717887301	0.03304251
7	Bet1l	54399	9.085837581	9.012596759	9.46953137	9.361285383	9.611043383	9.544922747	0.002063253
UN	betaGal_40-S	NA	6.582569489	6.766666078	7.144212124	7.204331361	7.214321065	7.169683843	0.000573529
X	Bex2	12069	10.54304974	10.58274041	10.96087339	11.08210807	10.86109689	10.80599961	0.010359143
19	Bloc1s2	73689	9.498735741	9.603418354	10.11522802	10.11729467	10.31575099	10.29681384	1.43E-05
2	Blvra	109778	8.382541248	8.600562389	8.962606701	8.914738624	8.950488818	8.794765498	0.00382904
14	Bmp4	12159	9.100111711	9.16511469	9.449937068	9.456071127	9.61226696	9.442839352	0.01256535
5	Brca2	12190	8.306623884	8.397914627	8.891073547	8.869888574	8.759858014	8.685527844	0.001809524
8	Brf2	66653	8.820088645	8.848776729	9.093108691	9.130506638	9.359745643	9.189710017	0.012889387
19	Bscl2	14705	10.36021393	10.49365759	10.720077	10.84681679	10.89125772	10.87429987	0.004656522
19	Btaf1	107182	9.778468384	9.872615295	10.07714641	10.16265223	10.17220652	10.20865726	0.021946667
16	Btbd12	52864	9.511310492	9.54451093	9.741977766	9.812212548	9.899600651	9.868198507	0.038053131
9	Bud13	215051	9.79226592	9.930883292	10.25236335	10.19559074	10.52011461	10.15510493	0.003993039
3	Bxdc5	70285	11.29165496	11.15022133	11.54986344	11.69481627	11.67939024	11.68419658	0.002558824
10	C030002B11Rik	78540	6.862664666	7.018402408	7.275553188	7.179093467	7.315616287	7.364585756	0.017650856
7	C030039L03Rik	112415	7.438112705	7.300453241	7.650337482	7.69193787	7.937154929	7.873943117	0.004055046
5	C030048B08Rik	269623	7.860963709	7.700736935	8.267926913	8.248583107	8.388609586	8.248891604	0.00056
6	C130022K22Rik	232236	8.145145034	8.3563537	8.645508129	8.596765168	8.871925207	8.901558808	0.00075641
7	C230052I12Rik	101831	7.64973864	7.508890748	7.873943117	7.849319135	7.973207012	7.816807197	0.040807306
11	C230057C09Rik	327998	6.696332143	6.582883276	6.984356006	6.922074043	6.797311404	6.998701558	0.048593033
17	C230080E09Rik	100038746	6.542144483	6.747265035	7.041739285	6.996275649	6.935399248	6.943877815	0.019573957
12	C330002I19Rik	77480	9.574234734	9.608663604	9.823668403	9.850849101	9.921787423	9.974979012	0.038268685
11	C330016O10Rik	212706	7.682767776	7.766651523	7.984178921	8.011438306	8.14050889	8.08352331	0.022072029
UN	C330046E03	NA	7.04946448	7.207238897	7.480866168	7.751467641	7.451011188	7.403881645	0.006164
2	C430004E15Rik	97031	9.136400551	9.167635441	9.473490388	9.576385413	9.589670492	9.449114643	0.009521222
15	C920006C10Rik	76740	8.165563399	7.946660595	8.336102332	8.420090993	8.443479945	8.293164566	0.030166314
8	Calb2	12308	7.327236593	7.386859177	7.906594215	8.024991574	7.714802795	7.879377238	0.000358382
13	Caml	12328	7.69969085	7.906462607	8.25046009	8.278619296	8.220734991	8.285007422	0.001684211
3	Car13	71934	8.524373448	8.510116767	9.035570569	9.199541201	8.992500636	8.951884437	0.000343195
11	Casc3	192160	10.52166156	10.35684541	10.66206286	10.80816956	10.88628759	10.6050844	0.04194086
6	Cbx3	12417	10.03977807	9.978856493	10.34640457	10.49300921	10.43469757	10.4554786	0.002989873
10	Ccar1	67500	10.2693732	10.06535885	10.54893784	10.60015979	10.67680835	10.70389372	0.001463918
7	Ccdc106	232821	7.621129566	7.548587485	7.936439738	7.93751994	8.169051389	8.063684437	0.002255014
1	Ccdc115	69668	6.954945189	7.330841268	7.770407184	7.759496741	7.689690419	7.599333999	0.000211268
7	Ccdc123	72140	8.054502897	8.086648227	8.563226881	8.44425077	8.44425077	8.367672765	0.006677543
15	Ccdc134	76457	7.824816911	7.708908127	8.011880243	8.041530689	8.214731134	8.026631855	0.037063584

11	Ccdc137	67291	7.107730631	7.147197231	7.646389426	7.546426472	7.670421602	7.715310726	0.000423913
9	Ccdc15	245902	6.622999249	6.840383887	7.085399403	7.119240874	7.128015356	7.196596372	0.005099576
11	Ccdc47	67163	9.037164709	9.037885439	9.341697554	9.480747584	9.444784189	9.459944956	0.005677686
11	Ccdc55	237859	8.777891576	8.639678802	9.463284425	9.444784189	9.391851591	9.43105305	0
19	Ccdc86	108673	10.1543094	10.31704073	10.41183353	10.43558152	10.84923836	10.74689155	0.012587156
11	Ccdc88a	108686	7.186513994	7.233971325	7.581850777	7.667288005	7.505989147	7.49360521	0.013535766
4	Ccnc	51813	7.807399256	7.839440897	8.36391878	8.408617941	8.157055207	8.279290108	0.001067729
17	Ccnf	12449	7.479817463	7.463104656	7.736477285	7.750650986	7.963417389	7.899409205	0.011331723
3	Ccnl1	56706	7.158114705	7.35011988	7.63004319	7.291901274	7.659578371	7.800293993	0.020007538
13	Ccrk	105278	7.464069796	7.546426472	7.928454702	8.042640893	8.037866016	8.077735925	0.00042623
3	Ccrn4l	12457	8.71481004	8.695737256	9.119019161	9.105834043	9.341697554	9.464470373	0.000223684
11	Cct4	12464	13.0968007	13.25022053	13.46222407	13.57791129	13.45580733	13.44698448	0.031595611
11	Cct6b	12467	7.386131251	7.585668135	7.800293993	7.95748639	7.859472814	7.826352332	0.009320205
7	Cd2bp2	70233	10.6835635	10.46329466	10.7666595	10.86607323	10.97282005	11.00777614	0.025322034
2	Cd59a	12509	7.564321625	7.492300881	8.211561395	8.24723327	8.186463236	7.930384101	6.82E-05
2	Cd59b	333883	7.030508555	7.139394307	7.570678427	7.565137949	7.52301913	7.554619514	0.001289963
11	Cd68	12514	7.410179787	7.495015065	8.513152873	8.336102332	8.517014341	8.243216908	0
19	Cdca5	67849	11.30667399	11.1890745	11.55634463	11.42687421	11.75418366	11.52438438	0.032350515
2	Cdk5rap1	66971	8.858530253	8.75954852	9.358743925	9.466634416	9.279961005	9.378873012	0.000203008
5	Cdk6	12571	8.294185219	8.319482808	8.600562389	8.391488612	8.72408065	8.892281226	0.020289441
5	Cdkl2	53886	7.669558674	7.900221639	8.302430845	8.287316841	8.281680734	8.27079943	0.000654378
17	Cdkn1a	12575	9.019120713	9.014380596	9.375793749	9.535216805	9.285151853	9.319235204	0.010754501
5	Cdv1	NA	8.289342803	8.236240828	8.491781936	8.645508129	8.669341168	8.623931861	0.016412081
12	Cenpo	52504	9.610565642	9.711486322	10.04343664	10.10234775	9.895014657	10.05555225	0.010969106
3	Cgn	70737	7.085069586	7.155705598	7.259612085	7.576746937	7.42462163	7.559243903	0.023011723
2	Chchd5	66170	8.815382129	8.606787389	8.925164083	9.070107319	9.147076991	9.178875579	0.011737679
5	Chic2	74277	9.981014164	9.829653924	10.49564227	10.52774551	10.74814548	10.35524611	6.98E-05
2	Chst1	76969	7.70302298	7.724253059	8.777581092	8.918905278	8.372681523	8.404081138	0
10	Cirbp	12696	7.07447172	7.184074137	7.951932381	7.855693692	7.718098069	7.785016011	0
8	Ckap2	80986	8.927439763	9.195721385	9.410766432	9.564962497	9.327149923	9.378614487	0.013440703
12	Ckb	12709	12.31226049	12.45179367	12.95079205	12.98643735	13.1033552	13.13008883	1.41E-05
16	Cldn1	12737	6.516105207	6.653833244	6.792483524	6.936651256	6.952331969	6.903163863	0.033595166
5	Cldn4	12740	10.82925548	10.80302642	11.10966041	11.28700172	11.15333115	10.95448151	0.032764286
11	Clk4	12750	7.815419973	7.974514813	8.202013131	8.298793964	8.1174221	8.199608436	0.032695385
7	Cln3	12752	8.972428319	8.938978553	9.195195848	9.385167276	9.434090634	9.445564603	0.004555066
13	Cltb	74325	7.282514395	7.259135199	7.778634587	7.775441037	7.683469463	7.691043774	0.001343972

9	Cmtm7	102545	8.957418895	8.963269246	9.271751953	9.340521468	9.410401857	9.247849581	0.012570122
1	Cnga3	12790	7.20942491	7.205105438	7.567785138	7.520836215	7.686124828	7.440132041	0.01573029
11	Cobl	12808	9.951194575	9.840668038	10.20540041	10.61146391	10.34230351	10.69174825	2.00E-04
8	Cog8	97484	9.735899694	9.861653539	10.30098195	10.20431125	10.37970107	10.46929074	0.000291925
15	Commd5	66398	9.202659681	9.091628333	9.706014555	9.69152372	9.76807655	9.650661188	0.000205882
5	Commd8	27784	7.359455347	7.305291628	7.565137949	7.612643633	7.696851379	7.609789101	0.049184122
2	Commd9	76501	7.24808445	7.249486458	7.561578166	7.427121955	7.674822366	7.561244507	0.036080818
2	Cops2	12848	11.00049898	10.86453065	11.28287518	11.42900103	11.12966423	11.33041562	0.011740032
11	Cops3	26572	12.35778401	12.4608321	12.63994006	12.85829481	12.74142484	12.60567951	0.039755825
1	Cops5	26754	10.08024349	10.37373326	10.75797884	10.5788063	10.68504897	10.72745252	0.001687296
1	Coq10b	67876	8.183141444	8.370926376	8.516214798	8.589417075	8.685527844	8.735469005	0.014513475
5	Cox19	68033	8.520634794	8.724757885	8.774550742	8.905824236	8.980162476	9.021751941	0.046497843
19	Cpn1	93721	8.191554876	7.982736278	8.626761483	8.474535988	8.613286957	8.387414269	0.002514905
3	Crc1	74175	6.95457989	6.837355737	7.403451293	7.148012367	7.473527189	7.480808187	0.001241509
4	Creb3	12913	8.519695397	8.613543513	9.001331324	9.030039131	9.137753109	9.073375734	0.000701299
15	Creld2	76737	10.43232844	9.922263522	10.4491603	10.27576584	10.56893438	10.62567289	0.040978142
9	Cryab	12955	8.751731625	8.917579684	9.304505543	9.400485971	9.484516115	9.22681598	0.000517949
3	Cryz	12972	7.603997648	7.83929056	8.051467103	8.164513964	8.06887305	8.022071075	0.013661808
1	Csrp1	13007	10.2057852	10.13620476	10.54498477	10.60223255	10.56630968	10.66080902	0.002938776
2	Cst3	13010	10.26354477	10.11268631	10.4404342	10.56019666	10.52380304	10.42875542	0.039650602
2	Cstf3	228410	9.044910801	9.107429123	9.40576289	9.325990394	9.407719824	9.599743135	0.012285714
7	Ctbp2	13017	8.539998196	8.778509187	8.99664267	9.129835882	9.041535345	9.162912952	0.003291971
3	Cth	107869	7.004557461	7.151980638	7.508800771	7.537963531	7.607455286	7.56873663	0.001079365
11	Ctns	83429	8.538729725	8.487380735	8.819598869	8.767790772	8.908541253	8.783044052	0.033992986
X	Cul4b	72584	10.57777718	10.57327873	10.93258085	11.16364936	11.07308518	11.12966423	0.00068559
19	Cutc	66388	8.093457616	8.213995515	8.552295439	8.590611007	8.455057558	8.429510969	0.013046131
9	Cwf19l2	244672	8.729903486	8.731808571	9.191451722	9.174928573	8.887414454	9.131994863	0.010134775
11	Cxcl16	66102	7.712485953	7.819988535	8.011637403	8.235159391	8.132739991	8.132739991	0.012043818
11	Cyb561	13056	9.262466674	9.251870705	9.658247802	9.754025933	9.61393638	9.545350688	0.006579457
11	Cyb5d2	192986	8.327854478	8.331248213	8.748531406	8.535447179	8.699952733	8.821504663	0.009579661
15	Cyhr1	54151	7.255117943	7.264160423	7.402859504	7.545880861	7.829933641	7.656845649	0.018887035
3	Cyr61	16007	7.090658437	7.103910312	7.799279532	7.906462607	7.627309822	7.600785157	3.95E-05
X	DOHXS9928E	108160	8.542489099	8.458203162	8.794765498	8.999507074	8.742014224	8.856690768	0.014509915
11	D11Bwg0434e	52898	8.478613671	8.343522686	8.832326418	8.801248768	8.994262537	8.935350302	0.001124031
11	D11Ertd636e	52670	7.610050188	7.635682949	8.649418492	8.735924569	9.019608584	8.753243464	0
11	D11Wsu47e	276852	9.823984861	9.747694387	10.01037731	10.05721539	10.16791414	10.15812075	0.03230547

11	D11Wsu99e	28081	7.539089588	7.373939234	7.730815869	7.655129379	7.886076878	7.785681857	0.037503356
14	D14Ertd581e	52023	6.947722886	7.005433031	7.192975025	7.338369263	7.266124682	7.381790518	0.027531216
14	D14Ertd668e	219132	8.323212805	8.344369341	8.695966081	8.833082643	8.622090301	8.569709675	0.014947887
16	D16Ertd472e	67102	7.824433693	8.041530689	8.401213247	8.547706113	8.722503644	8.528008048	6.74E-05
4	D4Ertd429e	230917	8.299391252	8.336422936	8.649234063	8.739619199	8.664858356	8.69201801	0.009329915
1	D630023F18Rik	98303	8.098244335	8.434813868	8.792879547	8.819286851	9.049601973	8.917740621	6.02E-05
14	Dad1	13135	11.23340503	11.23708882	11.51927098	11.56459347	11.55634463	11.59359923	0.023490698
9	Dbr1	83703	10.53445281	10.47895241	10.7637539	10.90513773	10.83648259	10.79381649	0.02706946
10	Dcbld1	66686	8.353042469	8.608691373	8.819844298	8.835664918	8.898144494	8.805834609	0.01285907
18	Dcp2	70640	7.172269406	7.129918091	7.527632833	7.465546882	7.502436127	7.644385438	0.006730402
4	Dctn3	53598	10.03607863	10.04939238	10.37557429	10.48326403	10.28635031	10.20276544	0.041382883
18	Dctn4	67665	7.852925675	7.819300803	8.172567915	8.168768401	8.159359025	8.183796488	0.01824026
3	Ddah1	69219	8.411701939	8.593838268	8.935852854	8.915793541	8.923491219	9.00909398	0.002053892
11	Ddc	13195	9.337575901	9.189710017	9.857013396	9.687953341	9.802582905	9.708488956	0.00065
3	Ddx20	53975	10.36925238	10.36082883	10.64540343	10.66206286	10.68263539	10.87015794	0.014088698
12	Ddx24	27225	8.730494955	9.039190565	9.080049907	9.230785939	9.130234838	9.320290159	0.041679245
9	Ddx25	30959	9.107429123	9.131199676	9.551940304	9.619395768	9.644358078	9.503955492	0.001462069
X	Ddx3x	13205	8.038789988	8.060946286	8.316430825	8.433176699	8.505558918	8.66326689	0.002974874
9	Ddx50	94213	9.340249269	9.385167276	9.741071024	9.863765693	9.66220395	9.66369319	0.009276632
11	Ddx52	78394	10.05245141	9.914267554	10.46385869	10.54405051	10.44562369	10.64134655	0.000289308
5	Ddx55	67848	8.8963728	8.997833504	9.50558672	9.380223682	9.423092398	9.220793372	0.002470109
4	Ddx58	230073	7.452365848	7.597714989	8.032681854	8.104605724	7.905011715	8.12249237	0.000427027
10	Deadc1	66757	9.975750743	9.905725771	10.26164246	10.33056716	10.35224967	10.38584045	0.006006098
17	Dennd1c	70785	6.929666207	7.097059097	7.317629561	7.318305079	7.321785777	7.286315938	0.041088102
11	Derl2	116891	8.450290823	8.445450773	9.009715589	8.912023909	9.010476262	9.06590442	0.000210884
7	Dgat2	67800	7.671959899	7.431002233	7.912665821	7.882861389	7.834776076	7.855317019	0.027047305
16	Dgcr8	94223	7.795274289	8.01037458	8.152495044	8.275702989	8.305755474	8.316304097	0.013449339
7	Dhdh	71755	7.232783194	7.527531801	7.868683558	7.733516434	7.916431524	7.849319135	0.001668874
14	Dhrs4	28200	7.84206908	7.785016011	8.135708517	8.241627086	8.191840252	8.237392413	0.006327416
3	Dhx36	72162	9.785077258	9.679641025	10.03422718	10.01124818	10.12722338	10.06249882	0.023308858
11	Dhx8	217207	8.021119168	7.879377238	8.281360139	8.005143189	8.398943465	8.334332176	0.039758396
12	Dio3	107585	6.853518513	6.812706905	7.002962642	7.131877923	7.152486108	7.253823867	0.038942723
2	DKFZp434J1813	NA	6.903163863	6.885984883	7.307683367	7.144098822	7.117379236	7.158386336	0.046475452
12	Dld	13382	10.22542782	10.04851549	10.47895241	10.50987579	10.4339249	10.4339249	0.022059809
X	Dmd	13405	9.005545416	8.930512822	9.316773691	9.375793749	9.317360338	9.417759183	0.006165339
7	Dmkn	73712	6.711119945	6.93518534	7.171790007	7.182974927	7.153883206	7.156711585	0.01711008

5	Dnajc2	22791	7.596528605	7.462097741	7.872600849	7.862027046	7.780454426	7.928245164	0.020281796
2	Dnajc5	13002	9.899981209	10.17891839	10.37373326	10.31575099	10.36149518	10.31773953	0.041058024
11	Dnajc7	56354	12.64916705	12.44565555	13.13008883	13.00585874	13.04794404	13.07578246	0.000453125
1	Dner	227325	7.498542846	7.258119872	7.709290798	7.837842411	7.672766418	7.632796125	0.020602723
10	Dnmt3l	54427	12.58859254	12.72994708	13.25716074	13.17415101	13.17415101	13.13444655	0.000348837
2	Dnttip1	76233	10.56415489	10.50036652	11.24815941	11.27553397	11.19080524	11.17712643	0
6	Dok1	13448	6.976519015	7.02438152	7.295997152	7.327334809	7.403451293	7.310382208	0.019868687
2	Dolk	227697	7.916814108	7.700910254	8.126072338	8.303719399	8.36391878	8.382541248	0.001117647
11	Dph1	116905	9.307925514	8.99664267	9.464852811	9.488473907	9.528525686	9.61393638	0.011154221
4	Dph2	67728	9.091107282	9.15572744	9.368852197	9.489510456	9.422737247	9.58002165	0.016487968
11	Drg1	13494	11.95838879	11.84167512	12.24415499	12.33671059	12.07317433	12.32358855	0.015425175
1	Drr1	13499	12.37734304	12.29994549	13.04071962	13.15154686	13.29018189	13.38012584	0
13	Dsp	109620	7.187272178	7.410888793	7.649820787	7.726144591	7.713839158	7.864657776	0.002348189
5	Dtx2	74198	7.380246935	7.129425971	7.673424422	7.697970641	7.66810591	7.595181533	0.00482618
17	Dusp1	19252	10.47545196	10.70823445	10.89915793	10.99453861	11.02644713	11.01000344	0.006723282
11	Dusp14	56405	7.608808286	7.5453927	7.768690018	7.949015863	7.898166907	7.985633947	0.025270975
6	Dusp16	70686	8.733221356	8.472207641	8.86788529	9.00909398	8.97040507	8.905824236	0.020745074
1	Dyrk3	226419	9.295655298	9.333511024	9.682887686	9.814171881	9.718247681	9.731085856	0.00308867
12	E2f6	50496	7.469388321	7.826903497	7.9849317	8.041408252	8.122150898	8.20528902	0.00278534
9	E330016A19Rik	214763	7.42826677	7.646775808	7.772825983	7.74231428	7.907458478	8.010934451	0.031048168
13	Edn1	13614	7.129425971	6.977250515	7.567217174	7.464627984	7.851293858	7.814129692	7.69E-05
7	Eed	13626	9.365483078	9.440965434	9.517194092	9.835241835	9.702972243	9.876033304	0.025696429
3	Efna4	13639	7.96232876	7.638931374	8.318533046	8.08941204	8.069471875	8.006159433	0.030026539
12	EG266459	266459	8.692589258	8.870099513	9.082517494	8.835902189	9.073375734	9.439974904	0.030188161
UN	EG432879	432879	7.278822028	7.417297722	7.603228147	7.657273972	7.778634587	7.698900655	0.020200999
18	Egr1	13653	8.839814921	8.720478582	8.990685467	8.917740621	9.172391709	9.294566612	0.037030918
19	Ehbp1l1	114601	7.091410478	7.075906546	7.355323597	7.316822165	7.433305325	7.382339014	0.048395408
18	Eif1a	13664	11.39186156	11.4050059	11.76463332	11.88909408	11.74950781	11.82284069	0.004052995
5	Eif2b4	13667	10.47823976	10.53445281	10.89188743	10.85695956	10.93926597	10.84533979	0.008069519
8	Eil	13716	8.834051822	8.970669728	9.089180605	9.198259241	9.317764727	9.269915045	0.031719043
X	Emd	13726	9.624122361	9.533308264	10.11729467	9.996575442	9.907083912	9.806787759	0.007716878
6	Emp1	13730	9.118010194	8.826142301	9.38812244	9.378614487	9.158205108	9.275202472	0.023093567
1	En1	13798	7.162873223	6.987818145	7.323467841	7.206544923	7.555542033	7.481787929	0.035100791
14	Enox1	239188	8.054818479	7.932401547	8.501047737	8.391788213	8.581160801	8.360573806	0.001405594
14	ENSMUSG00000063277	545015	6.404716508	6.82985568	6.915220583	7.060914415	6.700812908	7.061253941	0.030372363
X	ENSMUSG00000073019	331484	8.791390153	8.845970434	9.185468719	9.074346804	8.906717223	9.293861347	0.042322034

14	Epb4.9	13829	9.639013198	9.677525702	9.928665697	9.892833675	9.960468413	10.01333623	0.045091783
7	Ercc1	13870	9.44066184	9.514617309	9.845156994	9.998098605	10.01570273	9.981014164	0.001024
16	Ercc4	50505	8.274582555	8.135708517	8.643031412	8.584233297	8.81884506	8.568305771	0.001903125
X	Ercc6l	236930	6.903288248	7.009729573	7.232038107	7.215630815	7.297305528	7.410888793	0.021095706
4	Errfi1	74155	9.318563173	9.014843379	9.895486205	9.797488803	10.41889701	10.1708346	0
14	Esd	13885	11.75766851	11.73786764	12.20116591	12.08896007	12.41991304	12.14708901	0.001363958
12	Esrrb	26380	12.58302941	12.59581003	12.79051582	13.04794404	12.99755616	12.88742742	0.019278626
9	Etfa	110842	11.85950246	11.71450842	12.29994549	12.28916009	12.37834873	12.17221518	0.000696429
11	Etv4	18612	9.678010498	9.767087059	10.40431659	10.49495132	10.35647079	10.36082883	1.69E-05
5	Exoc1	69940	9.385167276	9.636751045	9.802082451	9.857658805	9.876033304	9.741977766	0.037873805
6	Exoc6b	75914	9.334710808	9.30641069	9.794841206	9.769065228	9.941175625	9.787885534	0.000622642
8	Exoc8	102058	8.930512822	8.864628527	8.995883517	9.209458559	9.271985277	9.37933946	0.033857143
7	Exod1	71151	7.173472797	7.268913664	7.684737208	7.708908127	7.747611837	7.759093852	0.000580488
19	Exosc1	66583	10.18026054	10.2311392	10.41889701	10.50309272	10.58816148	10.57416294	0.029994698
4	Exosc10	50912	8.932164705	8.824055643	9.242070819	8.940670836	9.292468591	9.288898717	0.03417
15	Exosc4	109075	8.652412305	8.572393345	8.897164932	8.860462803	9.03761825	9.034472678	0.016373656
3	Extl2	58193	7.867031754	7.835953618	8.256050087	8.284172253	8.320876029	8.344792387	0.001792332
4	Eya3	14050	7.755512487	7.755686105	8.122730364	8.033155795	8.106261077	8.069092186	0.022024155
13	F2r	14062	11.43319713	11.53659106	11.73546606	11.83698884	11.81547495	11.89900665	0.019065385
X	F8a	14070	7.844428763	7.900490533	8.464377598	8.511498796	8.328403037	8.420090993	0.000201493
7	Fadd	14082	7.698302989	7.602817824	7.935695882	7.924355699	8.114905359	8.037670492	0.014219373
4	Faf1	14084	7.815891928	7.939906633	8.158700606	8.081059135	8.215399833	8.235277068	0.0445777
6	Fancd2	211651	6.979173893	7.021121446	7.416839275	7.496980253	7.345559147	7.46450754	0.002474114
11	Fancl	67030	9.327149923	9.366428099	9.623332935	9.578364256	9.757081046	9.626659288	0.040326306
1	Farsb	23874	11.59869847	11.46083353	11.88909408	11.87398969	11.87722137	11.78542621	0.022058683
2	Fastkd5	380601	9.683114726	9.687953341	9.932436435	9.85440788	10.14984522	10.11418113	0.026076837
2	Fbxo3	57443	7.691043774	7.927015893	8.10921573	8.236500574	8.045419963	8.131680114	0.027872549
15	Fbxo4	106052	6.913571629	6.757538287	7.056354887	7.115212031	7.279598519	7.181130187	0.028115217
7	Fbxo46	243867	8.843962325	9.14036292	9.273507876	9.192580396	9.472671608	9.346196175	0.027873501
8	Fbxw9	68628	9.241525911	8.880863285	9.37933946	9.255078405	9.456071127	9.381523853	0.041002727
7	Fcgrt	14132	8.828885758	8.744938693	9.017909319	9.140861239	9.086056811	9.155976107	0.030182011
18	Fem1c	240263	7.7371607	7.690329886	7.936871152	8.153731679	8.15956894	8.180764624	0.006387033
19	Fer1l3	226101	9.359745643	9.536134805	9.915005128	9.606728677	9.753629465	9.806254005	0.027489035
5	Fgfbp1	14181	7.097159708	7.217392358	7.698709625	7.93777974	7.927402706	7.975282689	0
11	Figl1	60530	10.07714641	10.01904884	10.17484753	10.42520841	10.40286884	10.60135719	0.016211382
5	Fkbp6	94244	7.161421807	7.221469778	7.785969655	7.694265373	7.613240329	7.663496758	0.000657407

X	Flna	192176	9.546495522	9.628053765	10.19256207	10.23240183	10.08356744	9.927557405	0.000402235
11	Fmip	NA	9.484023642	9.676414374	9.87059504	9.954620012	9.948768361	9.790280016	0.034404171
X	Fmr1nb	207854	7.014874206	7.234727281	7.48674604	7.557345645	7.474331238	7.517774702	0.006904135
12	Fntb	110606	11.20692688	11.32503306	11.62593347	11.52570701	11.80423552	11.53181111	0.014044413
9	Foxred1	235169	7.413474261	7.538508584	7.805792458	7.765997223	7.771165956	7.865551508	0.022827059
3	Fpgt	75540	7.37798969	7.395369278	7.82836196	7.850462851	7.949984156	7.860963709	0.000938776
X	Ftsj1	54632	7.164705766	7.387661448	7.772326493	7.680809969	7.575809248	7.552121471	0.01029703
11	Ftsj3	56095	9.086962403	8.994262537	9.342083595	9.461047162	9.43465688	9.469280381	0.00672
5	G3bp2	23881	9.688442354	9.599743135	10.24295628	10.08270216	10.21920212	9.955343828	0.001173077
6	Gadd45a	13197	10.09373837	9.863432228	10.41503766	10.32873523	10.57231284	10.41110189	0.001893417
5	Galnt11	231050	8.799168796	8.587910821	9.169963011	9.210581271	9.164660456	9.01775134	0.002057057
8	Gas8	104346	7.412311026	7.376532146	7.636826645	7.649572728	7.784929743	7.659249924	0.049251896
17	Gemin6	67242	9.907764672	9.977775167	10.40195081	10.41594363	10.50772045	10.62670095	0.000251613
11	Ggnbp2	217039	11.20604568	10.96998699	11.39058316	11.57429246	11.47702166	11.47027586	0.006789374
15	Ghr	14600	7.519085361	7.524937208	7.924958459	7.916814108	7.9849317	7.902759168	0.003958042
3	Gipc2	54120	7.107956418	7.162873223	7.431879745	7.590704364	7.329806252	7.481418186	0.02431422
4	Gjb3	14620	9.288125635	9.199932928	9.830703373	9.909598553	9.970925982	9.960468413	1.54E-05
4	Gjb4	14621	6.71245477	6.858736616	7.202250181	7.180230841	7.245454968	7.157613449	0.003955814
19	Gm101	226356	8.482183514	8.495383067	9.0499765	8.959280424	9.070837426	8.934446496	0.000492228
5	Gm5	194292	6.573917945	6.662328532	6.91389752	6.915945705	6.899628166	6.889981475	0.047719418
17	Gng13	64337	7.754814186	7.673424422	8.166000373	8.226247988	8.145667584	7.978029305	0.003745882
11	Gosr2	56494	8.301239926	8.699557064	8.918905278	8.777891576	8.787706378	8.770872285	0.039453695
3	Gpatch4	66614	9.420168268	9.606728677	9.909598553	9.78575902	10.24295628	10.18805078	0.000606635
6	Gpnmb	93695	7.026162327	7.040778617	7.48507923	7.537622683	7.358852415	7.445596857	0.002803618
2	Gpr107	277463	8.184905226	8.319102294	8.545425863	8.642516304	8.518927045	8.55321176	0.02983778
3	Gpr160	71862	7.365792541	7.460643345	7.808522969	7.80653982	7.744321082	7.793167044	0.008081705
9	Gpx1	14775	12.10421577	12.09536283	12.76126951	12.62097083	13.01737131	12.70469639	1.56E-05
X	Gripap1	54645	7.424527109	7.284434161	7.658001006	7.606666099	7.86752672	7.680809969	0.01675133
7	Grwd1	101612	8.466782383	8.420090993	8.786024664	8.521371752	8.910811716	8.790832764	0.038741996
3	Gstm1	14862	8.683826963	8.962606701	9.14036292	9.19068399	9.051971069	9.144354127	0.03675121
3	Gstm6	14867	6.929508302	7.135208424	7.331058406	7.406342843	7.358078146	7.269478943	0.035508358
16	Gtf2e1	74197	10.98602	11.08345504	11.44363208	11.48629809	11.47578718	11.4050059	0.003360775
17	Gtf2f1	98053	8.488119038	8.632350648	8.928514531	8.775204852	9.131994863	8.946018969	0.008127208
7	Gtf2h1	14884	11.44283336	11.20177754	11.70201085	11.60444874	11.8285044	11.82584934	0.004023095
7	H47	109815	9.354863839	9.157978462	9.768611233	9.912215853	9.834318482	9.872615295	0.000153846
11	Hap1	15114	9.774240994	9.678398017	10.05016778	10.16552759	10.00280761	9.888231235	0.037957102

6	Hebp1	15199	9.147076991	9.243450139	9.714305402	9.649437389	9.670797543	9.445232671	0.003081081
13	Higd2a	67044	11.56808415	11.75766851	11.93586232	12.06092547	12.08896007	11.79454463	0.03825
4	Hint2	68917	10.76560231	10.72968212	11.11636407	11.12879075	11.11525411	11.105015	0.009327616
6	Hipk2	15258	7.295200981	7.495706442	7.577890373	7.583394416	7.736169677	8.055318414	0.023598142
13	Hist1h1c	50708	7.52301913	7.302907078	7.846313008	7.93672006	8.299662869	8.347485058	1.59E-05
13	Hist1h2bc	68024	7.223755125	7.305554601	7.979097413	8.125442967	8.310889588	8.313537689	0
13	Hist1h4f	319157	8.337564588	8.031253388	8.521371752	8.520916545	8.554955113	8.476537399	0.022068675
10	Hmha1	70719	8.725078495	8.601928711	9.408171273	9.374781426	9.249050071	8.987150089	0.000152381
8	Hmox1	15368	10.19776025	10.05555225	10.46412687	10.46134799	10.50166859	10.36308868	0.025303269
11	Hnrph1	59013	11.47415303	11.48268217	11.80625168	11.8285044	11.79885379	11.80423552	0.019939623
11	Hormad2	75828	8.839032994	8.570756295	9.467190232	9.367423276	9.06590442	8.958086277	0.000690265
4	Hpd1	242642	9.101092252	8.865789396	9.303976395	9.258306727	9.376732484	9.328224966	0.021939541
X	Hprt	NA	11.14834085	11.28700172	11.57429246	11.72026043	11.5954127	11.51112751	0.007668488
19	Hps6	20170	8.346772638	8.328659408	8.719500452	8.76445561	8.885078009	8.742863744	0.002276353
5	Hs3st1	15476	6.719384894	6.687094105	6.982091569	6.798839678	7.229562208	7.19574144	0.019562025
7	Htra1	56213	7.586531303	7.977496227	8.188679437	8.320538038	8.137977643	8.217618896	0.000357955
11	Hus1	15574	9.913115374	9.985380763	10.30900006	10.44136755	10.36082883	10.36790632	0.003215159
9	Icam1	15894	10.34407196	10.2117349	10.4554786	10.47734999	10.77490548	10.70959596	0.029812367
2	Id1	15901	9.312492673	9.372417439	9.729847508	9.726829931	9.564962497	9.709266165	0.016288227
12	Id2	15902	6.837697954	6.895016948	7.223209084	7.09174129	7.097486779	7.195814399	0.049301347
11	Ift20	55978	9.160403006	9.270476343	9.441393675	9.637465908	9.559228363	9.67691981	0.011930709
2	Ift52	245866	8.470385861	8.434643459	8.642516304	8.813612764	8.820352704	8.69374021	0.049572987
6	Igf2bp3	140488	7.603333737	7.670421602	8.010934451	7.951792	8.015764609	7.958021231	0.014545969
X	Ikbkg	16151	7.717546127	7.882292262	8.00880322	8.349843563	8.104721346	8.07697875	0.022457788
1	Il24	93672	6.677004058	6.586910389	6.947321684	6.930514217	6.979636246	7.048659699	0.0155
16	Il1r1	106347	6.986465072	7.024661465	7.455543085	7.379243959	7.436769421	7.512152147	0.002077381
10	Ilvbl	216136	8.154988997	8.104605724	8.470570705	8.505953265	8.595268926	8.382732794	0.012381762
12	Immp2l	93757	8.377308356	8.141871336	8.713300116	8.804366791	8.747727676	8.592177893	0.001813291
18	Impact	16210	10.06180648	10.13854241	10.44816575	10.5398355	10.64540343	10.22151949	0.012736762
7	Irf3	54131	7.843793367	7.683954315	7.997124482	8.119436717	7.995789413	8.104275566	0.04861545
7	Irgq	210146	6.642472192	6.766178952	6.976462861	6.994924045	7.125851801	7.076319429	0.018894466
6	Irfg2	101142	8.571052364	8.466782383	8.941511306	8.977578623	9.104174112	9.319882779	0.000170543
4	Itgb3bp	67733	8.433867982	8.722879066	9.48007972	9.532205604	9.553150601	9.396676641	0
12	Itsn2	20403	8.330973302	8.055318414	8.399583555	8.555579411	8.547206867	8.539048462	0.031049266
6	Jagn1	67767	10.63457943	10.51527603	10.85528103	10.8430916	11.13635737	10.70238943	0.038341832
7	Josd2	66124	8.23799795	8.123884523	8.505197284	8.444905847	8.554642824	8.411701939	0.039911684

9	Josd3	75316	9.449114643	9.441393675	9.872021627	10.19099092	9.808617962	9.943432501	0.000589372
3	Jtb	23922	10.22678212	10.09893514	10.47823976	10.35647079	10.62567289	10.6214659	0.013698113
15	Kdelr3	105785	7.959226371	7.944961422	8.182159676	8.301239926	8.267167373	8.27190095	0.03604386
2	Kin	16588	7.479955343	7.48507923	7.829933641	7.774237858	7.93751994	7.863451395	0.009765203
4	Klf4	16600	7.523724865	7.503578161	7.80796925	7.884256011	8.077455428	7.994465884	0.003076923
13	Klf6	23849	10.47895241	10.47137169	10.59888061	10.77874964	10.84533979	10.91169271	0.037346449
1	Klhdc9	68874	6.987697176	7.248666897	7.638790282	7.757981169	7.41554657	7.42102535	0.002461749
7	Klhl25	207952	7.719497595	7.468440546	7.930384101	7.974809266	7.879708165	7.877084879	0.025959866
16	Kpna1	16646	8.730289383	8.820088645	9.107856892	9.155277883	9.03878545	9.21894671	0.012583206
6	Krcc1	57896	8.032681854	7.95748639	8.248219021	8.280556492	8.336102332	8.332810479	0.035504921
9	Kri1	215194	7.449813354	7.327707693	7.74716344	7.745186814	7.696631734	7.821073736	0.010192371
11	Krt1-14	NA	6.914609983	7.008858825	7.365792541	7.582621102	7.405963893	7.439781777	0.000929752
15	Krt1-18	NA	10.09152467	9.822155829	10.41016751	10.50408996	10.44678284	10.14039578	0.00405977
11	Krt1-19	NA	7.491470583	7.587671378	8.533222443	8.729233183	8.301239926	8.571052364	0
11	Krt16	16666	6.396375774	6.646441585	7.01843702	7.040544494	6.901587494	6.919189082	0.002009174
11	Krt17	16667	8.639678802	8.577980191	9.269915045	9.287710792	9.138287417	9.109135346	0.000156863
15	Krt2-7	NA	8.797930438	8.873525411	9.723029051	9.758828268	9.58002165	9.494716054	0
15	Krt2-8	NA	10.73056173	10.46929074	11.34257011	11.47702166	11.26270252	11.15333115	0
3	Krtcap2	66059	12.1232759	12.07317433	12.3481061	12.37734304	12.38978605	12.43765238	0.045925347
4	L1td1	381591	9.067638591	9.145718196	9.619395768	9.487056497	9.583831055	10.01730271	0.000176923
15	L3mbtl2	214669	9.790280016	9.611043383	10.02000395	10.01520586	10.03002557	9.973421001	0.032469136
10	Lace1	215951	7.534770871	7.674584019	7.878895887	7.891317676	7.890914225	7.964136401	0.037870813
6	Lancl2	71835	7.27216946	7.367400535	7.636121742	7.585129609	7.72716298	7.51552351	0.042757792
4	Laptm5	16792	10.76820989	10.72133229	11.68667379	11.64533377	11.78957565	11.7676839	0
11	Lasp1	16796	12.10175555	12.02249449	12.62097083	12.51295302	12.66734069	12.3405658	0.001284644
4	Lck	16818	8.75016399	8.913266953	9.30641069	9.201006004	9.441393675	9.30641069	0.001110236
7	Ldhc	16833	6.930664953	6.973885434	7.387661448	7.271799064	7.29834916	7.213539081	0.016205163
14	Lgals3	16854	9.145381951	9.313530476	10.11418113	10.17547575	9.91812076	10.23411683	0
5	Limch1	77569	6.814757446	6.703171168	6.983624189	7.308337961	7.321421693	7.093909895	0.004344595
18	Lims2	225341	6.869305291	6.991615105	7.307450491	7.489364676	7.325985101	7.359581509	0.002187861
7	Lins2	72635	8.011637403	7.956042827	8.273155432	8.292111106	8.287316841	8.230065805	0.046658641
3	Lmna	16905	7.862606847	7.781711466	8.06887305	8.247414587	8.031064968	8.103599294	0.046135299
14	Lmo7	380928	6.484664697	6.685608354	7.033216034	6.803244747	6.866532041	7.018367565	0.017137566
12	LOC195150	NA	8.187385609	8.092572329	8.455224483	8.269510736	8.582091507	8.744545532	0.0116128
X	LOC212744	NA	7.409665388	7.695358091	8.238364427	8.058684108	8.076640191	7.828766487	0.000942623
19	LOC225897	NA	8.602206293	8.66326689	9.160768442	9.00784056	9.100111711	9.144870377	0.001289474

10	LOC235857	NA	6.718760602	6.786026792	7.111094007	6.983546319	7.040112941	7.099919379	0.033384226
12	LOC236359	NA	6.857578409	6.9854046	7.268152386	7.140264253	7.246318415	7.416933738	0.015923497
7	LOC244061	244061	6.614982787	6.637357804	6.871179735	6.842433005	6.968419163	7.066189576	0.032767109
9	LOC268730	NA	6.833256453	7.018696655	7.27052428	7.137793613	7.267443622	7.257837989	0.035663075
4	LOC277640	NA	6.994999041	7.031492811	7.515457731	7.317873911	7.335459584	7.482992791	0.004741379
4	LOC280065	NA	6.770205345	7.021026443	7.464924851	7.200088534	7.312107706	7.230571713	0.004843683
15	LOC328526	NA	8.009941275	8.263292355	8.452926355	8.601928711	8.609279992	8.536638845	0.004244898
13	LOC332788	NA	6.971038203	7.145634246	7.312669877	7.372193748	7.246504057	7.512729369	0.039480374
4	LOC381542	NA	6.805307164	6.945938527	7.08068853	7.074356566	7.228505319	7.325985101	0.043242236
7	LOC381860	NA	7.657835356	7.783438416	8.247414587	8.221451329	8.233759475	8.272597178	0.000356322
1	LOC382177	NA	6.969228762	7.05731437	7.569491972	7.629733426	7.557672119	7.590504423	0.000166667
X	LOC385855	NA	7.441305803	7.215379446	7.495015065	7.496295249	7.63407837	7.883091948	0.049284992
5	LOC386085	NA	7.83207682	7.84206908	8.397358751	8.135459443	8.08352331	8.134109265	0.013704942
Y	LOC386244	NA	7.287600393	7.220707727	7.725237987	7.617686305	7.752611986	7.97009316	0.000567164
4	LOC386539	NA	6.890387076	6.835325372	7.246130918	7.209225798	7.086460966	7.285245597	0.014812412
3	Lor	16939	6.526064755	6.770386784	7.01693428	7.14763619	7.26043874	7.331810573	0.000325301
5	Lrpap1	16976	9.012319937	9.150628425	9.449328341	9.287284913	9.328224966	9.463284425	0.039693023
7	Lrrc28	67867	8.999507074	8.978156254	9.336382904	9.210264021	9.277096064	9.457022448	0.020767813
11	Lrrc59	98238	10.5105645	10.44748992	10.95728782	11.0771	10.87015794	10.95404184	0.000929461
5	Lrrc8d	231549	10.19559074	10.19559074	10.58816148	10.71524233	10.73596867	10.73976191	0.000652968
4	Lsm10	116748	10.2442582	10.46595453	10.69328494	10.77996671	10.82805563	10.81559753	0.003096296
17	Ltb	16994	7.649025373	7.541697778	8.180764624	8.04028349	8.194877552	7.960353294	0.00068018
17	Luc7l	66978	9.971797172	10.07527324	10.39982052	10.36435	10.59259743	10.4903525	0.002418283
4	Luzp1	269593	9.256877525	9.324967817	9.644358078	9.732288119	9.738600433	9.645931606	0.005080679
15	Ly6a	110454	7.754066848	7.897905864	8.83048044	8.977076007	8.946284335	8.925164083	0
17	Ly6g6d	114654	7.373826729	7.497743632	7.951792	7.896672181	7.79241945	7.759931991	0.003611374
17	Mad2l1bp	66591	7.895868923	7.766272691	8.299662869	8.344369341	8.389668623	8.490885031	0.000216216
2	Map1lc3a	66734	9.063056955	9.261419576	9.444459518	9.575459165	9.512228473	9.386933756	0.030400421
11	Map2k4	26398	9.4457212	9.391157037	9.663404595	9.701599272	9.695190056	9.834036694	0.034172827
4	Map3k7	26409	7.90234294	7.733031751	8.075421324	8.041182147	8.147054771	8.194680195	0.043759505
17	Map4k3	225028	8.997833504	9.130506638	9.44066184	9.403863937	9.438420312	9.318563173	0.019116517
11	Mapt	17762	8.397747882	8.404676789	9.018407151	9.196138777	9.0259034	9.045504935	1.47E-05
2	March7	57438	7.601923939	7.360637141	7.91654421	7.838598378	7.96612169	8.114498318	0.001292593
1	Mars2	212679	7.388801782	7.329386135	7.759496741	7.745413175	7.902523641	7.878092613	0.001506803
2	Mastl	67121	7.38649964	7.360119553	7.746497884	7.839865613	7.594365305	7.820362648	0.0078213
3	Mbnl1	56758	7.376016985	7.529121288	8.188871496	8.270034265	8.143232353	8.326619342	0

11	Mbtd1	103537	7.278142261	7.190896833	7.598763178	7.476283582	7.404055824	7.660715327	0.038045584
10	Mdm2	17246	11.90976281	11.68667379	12.06092547	12.07472158	12.1961517	12.11043633	0.034258225
11	Med7	66213	10.24131071	10.10868949	10.90931478	10.83516424	10.91318146	10.97655003	0
11	Meis1	17268	6.652281025	6.742240871	6.920076181	6.907052082	7.118955843	7.374468692	0.009954622
6	Mest	17294	9.956986217	9.959794432	10.40465543	10.42139437	10.41016751	10.30177435	0.002806701
11	Mett10d	67493	9.300498597	9.123847518	9.193959813	9.371829369	9.758046595	9.837104552	0.032665984
11	Mettl2	52686	9.819346307	9.583067859	10.03395384	10.18805078	9.97699495	10.19218076	0.006052525
11	Mfap3	216760	9.148016661	9.079224734	9.383772614	9.365483078	9.352867868	9.51800414	0.043909894
6	Mfap5	50530	7.054280182	7.037392263	7.55118547	7.509803258	7.539935348	7.536987199	0.00083682
4	Mfn2	170731	9.388504563	9.624560781	9.738114801	9.899981209	9.758828268	9.809294205	0.047233276
3	Mfsd1	66868	9.659840879	9.610565642	9.855271013	9.980728154	9.916511456	9.953890797	0.04575805
2	Mga	29808	6.84541794	6.876520661	7.169386016	7.183553944	7.196158645	7.180125649	0.024283753
Z	Mia3	338366	6.629576744	6.524384233	6.919691925	6.800388566	6.905627649	6.829485588	0.048537288
10	Midn	59090	11.27469334	11.30491801	11.54557452	11.56646316	11.60232418	11.63471848	0.039714815
13	Mier3	218613	8.634906881	8.331648707	8.816336418	8.740620574	9.04335633	8.88843417	0.007965766
1	Mki67ip	67949	10.36626427	10.31426707	10.76165158	10.68040898	10.87334786	10.86507803	0.001727273
2	Mkks	59030	9.320290159	9.20040811	9.517684532	9.565853137	9.679164911	9.579658876	0.025328054
6	Mkln1	27418	8.760841173	8.965405945	9.256172436	9.256172436	9.251210641	9.015515067	0.022083632
19	Mlana	77836	7.58436924	7.466786476	8.231925975	8.181452453	8.377308356	8.245862084	0
9	Mns1	17427	9.466634416	9.57101039	9.928008891	9.998690135	9.925994806	9.93443911	0.002679894
1	Mobkl3	19070	8.390941746	8.322790292	8.680398277	8.641498936	8.782161523	8.665109111	0.019303685
13	Mocs2	17434	8.242860902	8.230065805	8.661889111	8.356232135	8.522856732	8.606277948	0.040181818
X	Mospd1	70380	6.615916643	6.867958198	6.988433759	7.082938505	7.147332986	7.113137623	0.020032581
15	Mov101	83456	6.840280176	6.903583401	7.296261083	7.258216507	7.208424683	7.197153522	0.009322526
9	Mpzi2	14012	8.029631031	7.904343229	8.440593836	8.670404392	8.378374931	8.564478414	0.00025
9	Mras	17532	7.751901542	7.60339436	7.987021201	8.042317508	8.180265653	8.224274707	0.003035
2	Mrc1	17533	6.59227036	6.552276708	6.830929767	6.939116788	6.974599534	6.804839718	0.029305882
5	Mrpl1	94061	10.77389773	10.79812286	11.1354614	11.1852441	11.21447693	11.11941514	0.008072954
19	Mrpl11	66419	10.36308868	10.4339249	10.75045317	10.76983327	10.682027	10.68040898	0.023685912
6	Mrpl19	56284	8.777404033	9.232868177	9.941684314	9.680524905	9.59873555	9.586544663	0
7	Mrpl48	52443	8.281000548	8.388609586	8.716808208	8.517385434	8.685956002	8.602206293	0.043686448
19	Mrpl49	18120	9.967351597	9.962066138	10.22080381	10.29249951	10.67641456	10.29572609	0.005172632
3	Mrpl9	78523	9.139253991	9.137473672	9.367423276	9.319235204	9.638185536	9.416191982	0.048051107
17	Mrps18b	66973	9.945837051	10.00667401	10.26628638	10.43036824	10.40346834	10.42520841	0.004640523
19	Ms4a10	69826	8.150653035	8.097444594	8.887193295	8.712946044	9.09827144	8.864628527	0
14	Msc	17681	6.915645741	6.817307937	7.252347438	7.08691273	7.33569393	7.269875241	0.010187708

2	Msrb2	76467	8.050537605	8.401548735	8.629229987	8.575365361	8.65464556	8.519348639	0.012043887
8	Mt1	17748	12.28916009	12.05197266	13.22952845	13.30511382	13.20688903	13.1214543	0
8	Mt2	17750	8.156775806	8.230462235	8.585900192	8.576484647	8.572791132	8.605554576	0.005915984
8	Mt3	17751	6.874741326	6.875754999	7.153707559	7.296740344	7.217326033	7.087157461	0.029868085
5	Mterf	545725	9.049601973	9.086370169	9.61393638	9.52348791	9.654163425	9.509135182	0.000586538
1	Mterfd2	69821	8.09646908	8.404257853	8.742592579	8.887414454	8.983962946	8.955319834	3.90E-05
4	Mif1	17764	6.751829019	6.850789122	7.081450913	7.144714219	7.181361881	7.061552639	0.028776824
5	Mtif3	76366	7.651494282	7.562439644	8.134638804	8.145667584	8.294185219	8.146132119	0.000169643
7	Mtmr10	233315	7.145634246	7.0933847	7.395259441	7.359314699	7.676767951	7.313278407	0.032715158
14	Mtrf1	211253	7.84073489	7.792560186	8.179489296	8.053631386	8.143703868	8.066854495	0.041078947
3	Mtx1	17827	11.42119281	11.40194114	11.71450842	11.74180157	11.82284069	11.65709191	0.024287514
13	Muted	17828	8.880599699	8.878448686	9.028751016	9.228488103	9.296628752	9.276763553	0.025634529
11	Myl4	17896	9.63433261	9.807142317	10.29451327	10.37676328	10.26314967	10.18193451	0.00020438
3	Mynn	80732	7.729500768	7.460734109	8.050537605	8.041877582	8.187539419	8.195878436	0.00039548
9	Myo5a	17918	7.787496198	8.014302929	8.346277033	8.367579685	8.23799795	8.178926162	0.007989209
9	Myo6	17920	8.312596047	8.539442448	8.665109111	8.858327449	8.656509556	8.733221356	0.04079216
9	Myo9a	270163	7.186012443	7.013724539	7.41384568	7.393103609	7.368061371	7.405625373	0.041877917
6	Nagk	56174	8.333310878	8.260613992	8.765742432	8.643031412	8.69201801	8.497419881	0.013453079
6	Nanog	71950	9.490016488	9.401118328	9.978676507	10.01857572	10.05507288	9.889981704	0.000254777
15	Naprt1	223646	10.18259188	10.07410823	10.67165643	10.86002064	10.74624716	10.55452571	0.000162162
7	Napsa	16541	6.920114764	6.940580663	7.319488202	7.408682288	7.570678427	7.315808966	0.001322464
4	Nbn	27354	8.824454839	8.767790772	9.095416848	9.083389547	9.083815178	9.107429123	0.039456929
15	Nckap1l	105855	7.107836243	7.257616614	7.637593844	7.570029842	7.628298797	7.610050188	0.002704485
1	Ncl	17975	9.720857918	9.790668238	10.06180648	10.21033862	10.18731935	10.45399712	0.001373239
2	Ncoa6	56406	7.01759727	7.100150184	7.399746487	7.360991982	7.601315388	7.455976834	0.005932515
7	Ndnl2	66647	10.18437136	9.951826733	10.4260898	10.38068616	10.80599961	10.57604538	0.001344086
6	Ndufa5	68202	11.07308518	11.04554911	11.47415303	11.48120481	11.38557999	11.35385238	0.010200331
2	Ndufaf1	69702	9.538786929	9.361694366	9.866873303	9.941175625	9.852483088	10.01124818	0.001348754
11	Nefh	380684	7.516540888	7.30879678	7.878541277	7.697481581	7.962784934	7.884096937	0.002342697
3	Nes	18008	6.9810239	6.9813037	7.376401459	7.1431791	7.287600393	7.282514395	0.04667354
8	Nfat5	54446	7.853284215	7.756017299	8.294493062	8.288541668	8.11552048	8.238477795	0.002508108
4	Nfib	18028	6.986052721	7.067202639	7.350738195	7.279764538	7.428152557	7.392677962	0.019097187
17	Nfkbie	18037	6.522738145	6.786972807	6.940338169	7.012275878	7.126995429	7.191586619	0.00469697
14	Ngdn	68966	11.79885379	11.69766732	12.43218882	12.41054012	12.63080575	12.53623138	0
11	Ngfr	18053	7.925595582	8.180265653	8.65056173	8.265343294	8.393413017	8.502065221	0.006072435
X	Ngfrap1	12070	11.99702342	12.27917665	12.72994708	12.66563533	12.51125027	12.43218882	0.002192529

13	Nhlrc1	105193	6.69640046	6.847066052	7.086063921	7.215829833	7.097564991	7.25619841	0.006056452
19	Nhlrc2	66866	8.562459066	8.704891307	8.972691697	8.911261923	9.089180605	9.003177039	0.012383901
1	Nit1	27045	8.855258145	8.772751401	9.083191207	9.234236384	9.068345581	9.141405968	0.026929282
X	Nkrf	77286	8.283548659	8.263045271	8.535447179	8.652594351	8.665554459	8.678003999	0.011959119
1	Nme7	171567	9.973421001	9.832566071	10.5061077	10.49564227	10.48703114	10.54893784	8.60E-05
8	Nob1	67619	9.362628772	9.152979618	9.511885399	9.473490388	9.659840879	9.61665557	0.038065652
19	Noc3l	57753	8.460265015	8.346772638	8.850313975	8.852030031	8.957144157	9.091107282	0.000333333
10	Nodal	18119	10.19057949	10.22276815	10.51419328	10.51161914	10.69328494	10.74385135	0.004346154
6	Nol1	110109	7.556461736	7.728973042	7.879708165	7.820763153	8.097444594	8.088345086	0.026700997
1	Nol5	55989	11.59238269	11.41573092	11.98991656	12.03374073	12.10971105	12.07682113	0.00022
2	Nol5a	67134	10.4554786	10.89188743	11.25412481	11.15950547	11.27225431	11.32771413	0.000168
4	Nppb	18158	6.54360003	6.963743462	7.240084063	7.140464444	7.381790518	7.151827381	0.001508475
8	Nqo1	18104	8.15094376	8.08038138	8.76185555	8.7184027	8.786692486	8.68288933	6.10E-05
4	Nrd1	230598	11.105015	10.98602	11.3485128	11.36337626	11.51340838	11.15022133	0.042333036
11	Nsf	18195	10.62810254	10.67735473	10.94778769	11.07578519	11.01000344	10.99818082	0.012647951
4	Nsun4	72181	9.276462261	9.384699064	9.709266165	9.87393686	9.685789645	9.669849096	0.004557018
5	Nsun5	100609	7.532699178	7.59193952	7.987727993	7.955210708	8.069379544	7.924355699	0.003094059
11	Nt5c3l	68106	8.787706378	8.558528317	9.035365421	8.928514531	9.01775134	8.919600637	0.038968045
10	Nt5dc1	319638	7.579805517	7.288914386	7.76042302	7.746746206	7.775677104	7.712485953	0.032785276
17	Nubp2	26426	9.736545462	9.462747452	9.969453979	9.950310752	10.122955	10.00280761	0.00442
5	Nudt1	17766	9.97830449	9.982466689	10.36790632	10.37794506	10.4995687	10.40734512	0.002530997
7	Nudt19	110959	8.794444352	8.660619302	9.083815178	8.995883517	8.990685467	9.141793746	0.022888367
19	Nudt22	68323	8.331648707	8.385033154	8.618184847	8.742592579	8.650063487	8.594490754	0.042921778
7	Nup35	69482	8.500858708	8.249472209	8.543983511	8.608177734	8.851563278	8.813372485	0.028653391
10	Nup37	69736	8.181051374	8.326757494	8.751916576	8.762715372	8.873151157	8.649234063	0.000637209
5	Nupl2	231042	7.82560201	8.07615372	8.152892341	8.241802106	8.435037779	8.454731736	0.012376543
X	Nxt2	237082	9.591768535	9.582400989	10.26111784	10.23967509	9.927146996	10.00433037	0.000452632
5	Oas1g	23960	9.039726358	8.825017469	9.415463571	9.504536688	9.353596415	9.27087662	0.001803226
5	Ociad1	68095	10.94156979	10.997288	11.14476522	11.33759406	11.42900103	11.44798117	0.011178282
6	Olfr448	258270	7.688816759	7.769512849	8.058061573	8.108783031	7.99720571	7.984793218	0.03164375
5	Orai1	109305	8.423804357	8.184905226	8.854468271	8.794882348	8.964414159	8.893332412	0.000170732
6	Osbp13	71720	7.98655147	7.853959715	8.275107006	8.331648707	8.404257853	8.3716067	0.002984772
4	Osbp19	100273	10.39874096	10.59742327	11.23160718	11.08686133	10.86921073	10.94512302	0.000321212
1	Osgepl1	72085	7.897270593	7.891317676	8.234280954	8.215731049	8.293164566	8.294922301	0.010105
19	Ostf1	20409	9.911420027	9.979744619	10.36875757	10.29572609	10.24921761	10.2361451	0.015729542
10	Ostm1	14628	8.855035477	8.855407634	9.301805309	9.086671463	9.207571223	9.087286282	0.02811835

11	Otx1	18423	6.683193026	6.824364382	6.908681019	7.029117277	7.204810842	7.244118732	0.020316377
11	Ovca2	246257	8.651485499	8.788171722	8.942235827	8.999077962	9.391157037	9.286941623	0.003434783
15	Oxct1	67041	9.282066511	9.212720884	9.66369319	9.702232278	9.720265905	9.532205604	0.004357303
5	P2rx4	18438	7.120142351	7.243550738	7.542639131	7.480967489	7.494621687	7.516745879	0.022062726
11	P2rx5	94045	7.254600777	7.302097881	7.538206782	7.585958258	7.654267504	7.652822012	0.021744836
9	Paqr9	75552	6.396805705	6.458987798	6.66000998	6.75618524	6.83600158	6.989308429	0.00802693
14	Parg	26430	10.26229754	10.15879977	10.64597889	10.66575996	10.4202309	10.47545196	0.016208955
5	Pcolce	18542	8.982544908	8.94689022	9.509135182	9.530843904	9.462747452	9.374781426	0.000582524
9	Pcolce2	76477	8.030346205	7.858493846	8.475840693	8.386297897	8.420342716	8.455224483	0.000866667
9	Pcsk7	18554	7.436509566	7.395210283	7.751076933	7.635058274	7.783677833	7.689110597	0.039684601
5	Pdgfa	18590	8.763615013	8.629688574	9.224311815	9.218275735	9.269637611	9.123029287	0.000515306
3	Pdlim5	56376	7.21311655	7.326700627	7.653354894	7.670107007	7.811392755	7.622802502	0.003427885
11	Pelp1	75273	8.675882109	8.792879547	9.169369264	9.147337162	9.205363073	9.210581271	0.001820189
X	Pem	NA	11.67042807	11.82584934	12.37834873	12.3030604	12.09536283	12.30867735	0.000393258
11	Pes1	64934	8.577740415	8.575788335	8.877826916	8.804714745	9.314580674	9.215125451	0.001414634
7	Pex11a	18631	8.371130995	8.285164155	8.627789296	8.571259117	8.705262331	8.606787389	0.03949113
1	Pfkfb2	18640	7.506838016	7.463797198	7.814624972	7.730815869	7.789140885	7.765714347	0.045128384
2	Pfkfb3	170768	7.787383052	7.999461642	8.586348696	8.676552454	8.595772916	8.515305217	0
9	Pfkfb4	270198	7.438385082	7.305686169	7.642449738	7.741747859	7.667637905	7.621922268	0.040980892
3	Pfn2	18645	8.072410732	7.912441598	8.261537375	8.537137927	8.340141033	8.400733352	0.006591876
19	Pga5	58803	7.592744285	7.559243903	8.282184224	8.309779735	8.319482808	8.258123757	0
18	Pggt1b	225467	7.222886697	7.322424142	7.607455286	7.535541054	7.583252217	7.738770968	0.016079019
X	Pgrmc1	53328	6.898067997	6.878509066	7.166437078	7.123717101	7.230767629	7.209128524	0.042414439
3	Phf17	269424	11.29981524	11.02806407	11.39826921	11.43220526	11.61332211	11.64533377	0.015844567
11	Phf23	78246	10.26164246	10.10435698	10.5788063	10.39810431	10.66462818	10.48326403	0.016377358
15	Phf5a	68479	12.77863837	12.86609969	13.03017834	13.23538535	13.13844488	13.31242981	0.013400295
X	Phf6	70998	8.440162388	8.30317835	8.861516547	8.844560911	8.96077669	8.826888205	0.000621495
10	Phlda1	21664	9.62284763	9.439549103	10.61785703	10.74078299	10.74078299	10.77276605	0
2	Phospho2	73373	8.581795067	8.74925098	8.936730464	8.892659324	9.040388726	9.103297073	0.025103409
7	Phox2a	11859	7.720681197	7.675797636	8.149060373	8.093974727	8.106868547	8.092572329	0.003640662
9	Pias1	56469	8.526615876	8.739260528	8.953613798	9.042319136	9.067246169	9.172011656	0.003171569
17	Pigf	18701	10.8973905	11.01320968	11.16666478	11.27469334	11.32566928	11.3340919	0.028252165
7	Pik3c2a	18704	6.728774728	6.821746321	7.281225268	7.16668479	7.159837951	7.158259542	0.003431325
9	Pik3cb	74769	9.794841206	9.806787759	10.10505603	10.13543271	10.23164979	10.13508595	0.01378098
4	Pik3r3	18710	7.112272129	7.175493659	7.603333737	7.59614359	7.68595723	7.669149121	0.00069163
11	Pip4k2b	108083	7.279192817	7.383248555	7.714402621	7.506274667	7.565090737	7.724253059	0.042726868

7	Pkp3	56460	7.636121742	7.716721463	8.0380387	8.164866782	7.962119636	7.980015529	0.011735669
5	Plac8	231507	7.135809642	7.166607016	7.460734109	7.481996257	7.40526072	7.518577769	0.026245556
7	Plaur	18793	7.762708288	7.633661077	8.217007895	8.108503883	8.288248141	8.060791234	0.001294118
2	Pldn	18457	8.160728501	8.258557335	8.432097087	8.662999519	8.537536735	8.514944364	0.023697809
15	Plec1	18810	10.38763146	10.16791414	10.62290605	10.71142092	10.75154006	10.53654663	0.008805217
12	Plek2	27260	7.041377744	7.247056132	7.38007829	7.579805517	7.488494514	7.432272594	0.025304643
7	Plekha4	69217	8.212527728	8.189642564	8.440511664	8.485898898	8.548145235	8.505197284	0.043531915
12	Plekhh1	211945	8.943352819	8.745390971	9.09827144	9.207845487	9.382609522	9.287284913	0.006310277
13	Plk2	20620	8.650063487	8.669341168	9.022243295	9.160403006	9.106748102	9.039190565	0.003077114
9	Plscr1	22038	8.869641162	8.92088403	9.153447163	9.263555458	9.191088126	9.191451722	0.0342833
16	Pmm2	54128	7.106107067	7.103678582	7.295101624	7.427625828	7.425224076	7.484396919	0.037872015
1	Pnkd	56695	8.892281226	8.869641162	9.303310688	9.293861347	9.386933756	9.43771779	0.001227273
15	Pnpla3	116939	8.042317508	8.084887406	8.506624635	8.338229387	8.525103379	8.400212466	0.007777577
18	Polr2d	69241	10.24231078	10.1543094	10.56725563	10.46044785	10.77164672	10.72819609	0.002777202
12	Pomt2	217734	7.649984312	7.768690018	7.988318963	7.908621567	8.144718475	8.035839186	0.034974257
13	Ppap2a	19012	7.7673683	7.671959899	8.076366808	8.107642444	8.130100793	8.086451364	0.007484346
4	Ppcs	106564	8.910811716	8.948787463	9.354863839	9.419145692	9.603418354	9.573422032	0.000205674
1	Ppil3	70225	8.480882844	8.554125235	8.832786432	8.836193945	9.011306192	8.919060385	0.007519266
17	Ppm1b	19043	8.539773901	8.503081972	9.050222937	8.929414824	8.905824236	8.932478721	0.002355556
11	Ppm1d	53892	9.005219512	9.050757326	9.476371632	9.682309205	9.606728677	9.672052344	0.000163636
16	Ppm1f	68606	10.69390002	10.720077	11.19903905	11.16761385	11.13968744	11.11636407	0.001796178
17	Ppp1r10	52040	6.947448482	6.998444051	7.215630815	7.160511583	7.337035509	7.367083282	0.043779646
17	Ppp1r11	76497	10.09238409	10.14204038	10.67054299	10.63583904	10.87901994	10.67924172	9.57E-05
19	Ppp1r3c	53412	7.083369601	7.08512682	7.344568782	7.441305803	7.426604622	7.391036746	0.027510941
18	Pqlc1	66943	8.522135521	8.542489099	9.04335633	9.086370169	9.154015226	9.120723259	0.000169492
4	Prdm2	110593	8.618184847	8.835180449	9.046696992	9.290256603	9.106950097	9.054865048	0.005995927
10	Prep	19072	9.155976107	9.169369264	9.412112753	9.52085873	9.485019638	9.384309476	0.048069054
5	Prkab1	19079	9.168152913	9.028751016	9.372417439	9.465607208	9.551559637	9.347685292	0.020675309
17	Prkr	NA	7.724766149	7.790531464	8.197412061	8.171830427	8.226247988	8.165696689	0.002430939
19	Prpf19	28000	10.89188743	11.00871133	11.31925862	11.21237653	11.20334834	11.24746012	0.041123982
4	Prpf38a	230596	6.710828637	6.75232153	6.929754616	7.055088137	6.933602278	7.169502293	0.047809402
4	Prpf4	70052	8.951884437	9.148396526	9.41695504	9.550250292	9.49515985	9.340249269	0.005090909
15	Prr13	66151	11.48120481	11.45002187	12.09536283	12.15794249	11.91609716	11.87295049	0.000253165
9	Prss35	244954	6.83947704	6.987732698	7.174054196	7.208292305	7.276935126	7.317265142	0.02257601
7	Psm1	26440	11.61022775	11.47578718	11.93082148	11.87096492	11.95276753	11.73686186	0.022069795
11	Psmc5	19184	11.21237653	11.42983503	11.707692	11.5978418	11.73546606	11.94381675	0.003461722

X	Psmid10	53380	7.208040817	7.395490363	7.49328874	7.488494514	7.807636099	7.655332142	0.040793796
7	Psmid13	23997	11.22145167	11.20692688	11.56459347	11.45002187	11.67042807	11.45972747	0.026150167
2	Psmf1	228769	10.60713334	10.59964529	10.84628191	11.01069971	11.04519253	10.79001155	0.028479482
2	Pter	19212	8.020851031	8.100463355	8.511498796	8.583186532	8.588293938	8.456320125	0.00119084
4	Ptp4a2	19244	12.4169054	12.43765238	12.76548596	12.86609969	12.85031513	12.72044039	0.008958549
11	Purb	19291	7.671808391	7.498542846	7.863958228	7.991975422	7.853809546	7.914078866	0.025666667
5	Pus1	56361	9.111123783	8.952133664	9.279961005	9.450518981	9.326602993	9.332756188	0.02864617
9	Pus3	67049	8.635396374	8.500018806	8.855407634	9.062009501	9.199932928	9.295282694	0.000347059
5	Pus7	78697	7.335828056	7.219996572	7.564213419	7.727941408	7.719866509	7.702095252	0.005044681
5	Pxmp2	19301	8.502065221	8.555579411	8.933062267	8.962226962	8.865398633	8.835180449	0.009246127
6	Pyroxd1	232491	7.972876118	8.19091394	8.347880367	8.486263655	8.454120683	8.462498536	0.013905036
10	Qrs1	76563	9.634682335	9.869845815	10.00717612	10.10868949	10.16678177	10.11638415	0.017275726
16	Qtrtd1	106248	8.952745479	8.70091012	9.149844767	9.03878545	9.244071964	9.196830773	0.024163218
14	R3hcc1	71843	9.002823826	8.942784126	9.365939136	9.42570532	9.371077437	9.419145692	0.002933842
1	Rab711	226422	8.106419938	8.01520918	8.365372996	8.248891604	8.465167607	8.392544995	0.036074903
9	Rab8b	235442	9.208281803	9.091107282	9.614307071	9.799556021	9.782259134	9.706476237	0.000163793
11	Rabep1	54189	7.303432902	7.388415402	7.674822366	7.673231857	7.674182742	7.752315708	0.014241821
1	Rabif	98710	8.145897587	8.390941746	8.620968875	8.718940401	8.913680035	8.644413361	0.001932308
15	Rabl2a	68708	8.753712604	8.451470823	8.953903047	8.865398633	9.036862138	8.832326418	0.03148431
15	Rad1	19355	8.275702989	8.155599586	8.547206867	8.529316458	8.497780486	8.474249791	0.039461538
6	Rad51ap1	19362	8.362119631	8.152892341	8.678325422	8.552074749	8.645856434	8.504759633	0.019396705
12	Rage	26448	7.11235349	7.371569811	7.691043774	7.659962234	7.810348045	7.857349432	0.000583732
11	Rai12	54351	10.49300921	10.67489496	10.85603843	10.96718458	10.81716074	10.997288	0.025028506
11	Rangrf	57785	11.2449304	10.88628759	11.43220526	11.3994194	11.50876628	11.38285902	0.012770739
2	Rapsn	19400	6.859871268	7.056471568	7.257265914	7.228045456	7.309447076	7.344050366	0.025085421
11	Rars	104458	10.94778769	11.01000344	11.5177251	11.61646667	11.65709191	11.51501837	0.000104167
4	Rars2	109093	6.810811085	7.14572886	7.332158621	7.251933447	7.362000369	7.238787714	0.032897566
9	Rassf1	56289	9.053041421	9.114801324	9.426737154	9.44066184	9.871070802	9.922645208	0.000172131
5	Rbak	57782	7.527531801	7.911001813	8.095787025	8.060186664	8.111082511	8.131036022	0.009671743
X	Rbbp7	245688	10.1474853	10.34351518	10.44136755	10.73257737	10.70959596	10.44500864	0.023668208
5	Rbks	71336	6.78966049	6.766593107	6.984114004	7.129162431	7.131353395	7.102089909	0.034315737
19	Rbm20	73713	7.502080913	7.564618856	7.837378298	7.84914622	7.988106901	7.812804335	0.018667959
2	Rbm43	71684	8.512428646	8.564895869	8.874891991	8.841077705	8.873792349	8.814656525	0.029192719
3	Rbm8a	60365	8.678325422	8.413807061	8.87998194	8.923131188	9.123847518	8.983962946	0.002882051
X	RbmX	19655	6.682057709	6.902922999	7.140767056	7.212502211	7.230571713	7.375428829	0.002056716
X	Renbp	19703	9.356581698	9.498000747	9.811669831	9.838828941	9.84469805	9.766147164	0.006524462

6	Retsat	67442	9.191451722	9.382127226	9.797932951	9.631411347	9.550250292	9.531598524	0.018253576
13	Rfefd	218341	7.837378298	8.025588208	8.267741906	8.232655521	8.33202348	8.232655521	0.020688039
3	Rfxap	170767	8.036487002	8.151203552	8.317773219	8.557677606	8.397747882	8.308397449	0.039704461
1	Rgs16	19734	7.844620453	7.846931358	8.204712819	8.288248141	8.408220089	8.174885883	0.003288835
7	Rgs9bp	243923	8.088195787	8.098244335	8.653088457	8.825300663	8.813612764	8.764260229	1.49E-05
11	Rhbd1	13650	10.02482643	10.0562735	10.51280752	10.53305381	10.40195081	10.3262111	0.004554084
19	Rhod	11854	8.101178525	8.145667584	8.46503061	8.476197398	8.469234241	8.452598526	0.01577931
X	Rhox2	75199	6.67211763	6.570649922	7.215692802	7.029360214	7.163047097	7.339801415	2.00E-04
X	Rhox6	19202	6.883466746	7.036434796	7.34687461	7.524862986	7.435047487	7.373601606	0.001523649
X	Rhox9	104384	8.172567915	8.256701717	8.549893244	8.686472316	8.628741197	8.540657003	0.006728137
X	Ribc1	66611	7.033110726	7.023912196	7.218037223	7.454207607	7.434712262	7.362783201	0.020002509
15	Rims2	116838	6.974311554	6.998026141	7.448773571	7.595340041	7.695723998	7.611985128	9.47E-05
19	Rin1	225870	7.954161751	7.850795365	8.127877693	8.310501981	8.171521032	8.19388899	0.040270642
16	Ripk4	72388	9.071991936	8.921957321	9.257320243	9.523093038	9.37933946	9.394509173	0.006682692
19	Rln1	19773	6.595792002	6.693974898	7.06166623	7.015762445	7.07218622	7.143974685	0.002574468
11	Rmnd5b	66089	8.856690768	8.783524728	9.161191585	9.232599909	9.248251056	9.259628672	0.004439024
X	Rnf113a1	69942	7.916630125	8.055978207	8.481665654	8.564247895	8.643510437	8.763615013	5.95E-05
12	Rnf113a2	66381	8.64005223	8.698391452	9.101092252	8.921404344	9.203513018	9.211432769	0.002323864
6	Rnf181	66510	8.337053238	8.36391878	8.601453897	8.681131873	8.772182988	8.55068656	0.039467666
15	Rnf19	30945	9.78865107	9.880769332	10.16678177	10.16678177	10.29249951	10.2057852	0.009139655
5	Rnf34	80751	10.2516929	10.15348097	10.57777718	10.64809572	10.6214659	10.62207195	0.003441247
5	Rnf4	19822	9.564410451	9.896823391	10.0728963	10.06755451	10.15944826	10.05896105	0.014054519
5	Rnf6	74132	10.04121833	9.963806169	10.1966678	10.22775501	10.44288578	10.33005667	0.04672103
11	Rnmt1	67390	8.244940194	8.231798682	8.969861655	8.908828313	9.143886139	8.977333221	0
2	Rnpc2	NA	8.539591467	8.569709675	8.70958287	8.759238431	8.919060385	9.091628333	0.035081108
7	Rod1	230257	9.19879967	9.161191585	9.557697593	9.645931606	9.69575783	9.652843921	0.00156229
17	Rpl71	66229	10.83231931	10.81908452	11.05067612	11.09556098	11.2905528	11.18972963	0.023108899
2	Rpo1-2	20017	9.341697554	9.528860583	9.930485371	9.939815615	9.951194575	9.990790418	0.000428571
14	Rpp14	67053	8.681731963	8.802555632	9.088909651	9.111402208	9.276763553	9.168496219	0.003509524
9	Rpp25	102614	9.775404927	9.61665557	9.992114179	9.990790418	10.2516929	10.19819543	0.004668113
2	Rpp38	227522	8.93192845	9.000839076	9.378873012	9.408171273	9.660439094	9.52933897	0.000354286
15	Rps19bp1	66538	8.605910925	8.444450244	8.921404344	8.897164932	9.058710943	9.025168701	0.001919753
17	Rpusd1	106707	6.823019241	6.945893999	7.205041484	7.255970931	7.184777585	7.301230784	0.013469809
11	Rundc1	217201	7.258566808	7.18802449	7.685160361	7.586531303	7.820362648	7.679461862	0.001342857
3	S100a10	20194	8.298793964	8.612548104	8.757363951	8.927439763	8.775372531	8.707917118	0.022659976
3	S100a13	20196	7.596026286	7.836199177	8.297124016	8.334268339	8.422513841	8.388127872	4.11E-05

3	S100a6	20200	12.39852974	12.38231499	13.29018189	13.25022053	13.19641094	13.21120818	0
11	Sar1b	66397	9.820046964	9.796323446	10.13433679	10.18177703	10.20039257	9.913610865	0.039939227
5	Sbno1	243272	7.168026368	7.252130898	7.514107533	7.460125514	7.534622768	7.494495614	0.044954466
7	Sbsn	282619	7.412757822	7.224783895	7.627309822	7.757854317	7.624215483	7.423717886	0.046447504
1	Sccpdh	109232	9.149521075	9.262890695	9.622045194	9.653150025	9.287710792	9.561445802	0.024009217
16	scl0001836.1_14	NA	7.218620608	7.373601606	7.658751477	7.583672256	7.619038147	7.687461209	0.016828685
9	scl0003547.1_6	NA	7.540503387	7.734066971	8.338974641	8.170262239	7.985633947	7.982158545	0.001183908
X	Scml2	107815	7.596402564	7.642604665	8.726016772	8.540113788	7.994711895	7.984178921	1.82E-05
2	Sdc4	20971	8.790120608	8.850313975	9.0401741	9.177602782	9.246983146	9.136400551	0.022872066
2	Sdccag3	68112	7.110310571	7.161300226	7.435958799	7.448773571	7.431316839	7.567600122	0.018544041
16	Sec22l2	NA	8.0970718	8.3137115	8.579488108	8.628741197	8.626354009	8.64005223	0.003848131
2	Sec61a2	57743	7.678567156	7.703245219	8.07615372	8.005735439	7.960861667	8.016851363	0.022616845
10	Sec63	140740	8.385451721	8.391788213	8.592177893	8.577740415	8.727404208	8.895065096	0.037096432
3	Sep15	93684	9.969453979	9.907764672	10.45882634	10.04411703	10.37676328	10.16404907	0.029826411
7	Sepw1	20364	7.873127219	7.820913038	8.198235711	8.362471429	8.349380452	8.337053238	0.001378947
13	Serf1	20365	7.883294533	8.152219447	8.181051374	8.299248564	8.482026859	8.38898396	0.032814739
13	Serpinb6c	97848	8.234280954	8.134109265	8.509365796	8.628527601	8.461495599	8.353042469	0.03496333
7	Sertad1	55942	8.223273431	8.174885883	8.559459826	8.599576285	8.593004792	8.577980191	0.006864151
16	Setd4	224440	7.084246656	7.028074709	7.413360559	7.430522285	7.339849338	7.362640704	0.019885246
3	Setdb1	84505	8.906474803	8.860792207	9.16629896	9.243450139	9.259291689	9.206934433	0.01919898
4	Sf3a3	75062	11.66528272	11.69043819	11.83969914	12.04310944	12.03374073	12.04310944	0.033486377
3	Sf3b4	107701	10.997288	10.79491797	11.32351249	11.28120508	11.54986344	11.45002187	0.000619718
11	Sfi1	78887	8.288248141	8.237392413	8.910029588	8.990220769	8.84284807	8.649840439	0.000165138
3	Sfn	NA	8.704891307	8.616554856	9.146414125	9.275089701	9.311167369	9.19068399	0.000173554
3	Sfrs11	69207	8.748718652	8.686472316	8.998118114	9.036026219	9.011844817	9.122464228	0.022601183
12	Sfrs5	20384	10.79491797	10.54498477	11.24188099	11.20334834	11.24746012	11.10966041	0.000350877
10	Sgk	20393	9.470415659	9.683114726	10.11219435	10.11367792	10.05813565	10.26522159	0.000202899
1	Sgk3	170755	7.308655253	7.290183314	7.77892182	7.650423569	7.55653111	7.514916086	0.021594397
4	Sh3gl2	20404	9.274112107	9.230785939	9.484516115	9.634982943	9.574234734	9.517194092	0.038041825
12	Sh3yl1	24057	8.258490114	8.261881352	8.520634794	8.629688574	8.615551646	8.559759192	0.025286036
19	Shoc2	56392	8.865398633	8.768949099	9.164161188	8.966326471	9.196830773	9.191826666	0.032185492
X	Siah1b	20438	7.587304654	7.672584657	8.050996994	7.905594225	8.263292355	7.968162728	0.003990741
7	Sigirr	24058	7.647987948	8.037670492	8.217715475	8.297810039	8.299816905	8.394005949	0.001919505
10	Sirt1	93759	8.164280133	7.960580858	8.590420612	8.556514665	8.742863744	8.634906881	0.000166667
13	Sirt5	68346	8.260613992	7.99794149	8.542825193	8.557041691	8.418633664	8.391788213	0.015536857
11	Sirt7	209011	9.419721636	9.350477712	9.835580417	9.936903212	10.06138188	9.997163803	0.000162393

1	Slc11a1	18173	9.235747449	9.309888553	9.512228473	9.553981738	9.804178167	9.764365703	0.007786232
11	Slc16a6	104681	7.877841203	8.073315385	8.725078495	8.528008048	8.837175494	8.786024664	0
10	Slc16a9	66859	7.166382064	7.208892398	7.487140609	7.562327147	7.526183153	7.539089588	0.016380567
2	Slc23a2	54338	6.740163537	6.595701289	6.832472424	6.951051932	6.976354755	7.092110017	0.046537997
19	Slc25a45	107375	7.003453022	6.986917899	7.308949233	7.346024772	7.447874553	7.375666168	0.00866725
10	Slc29a3	71279	9.667640731	9.422737247	10.21920212	10.10985447	10.31829185	10.30860696	1.85E-05
6	Slc2a3	20527	12.92373998	12.81968823	13.08350437	13.21120818	13.30511382	13.1907285	0.02551573
1	Slc30a1	22782	8.294493062	8.571753479	8.790832764	8.698391452	8.777581092	8.986860169	0.009369676
4	Slc30a2	230810	7.306518039	7.416068866	7.853959715	7.636121742	8.016851363	8.012198921	0.000576355
2	Slc34a3	142681	7.243989777	7.331392446	7.688816759	7.832301243	7.66421071	7.69722501	0.002424242
11	Slc35b1	110172	12.14491784	12.08611569	12.40627101	12.42388	12.6517579	12.63994006	0.004152968
13	Slc35b3	108652	8.947036562	8.786024664	9.202932289	9.051971069	9.20040811	9.187491412	0.044194714
13	Slc35d2	70484	7.664831435	7.716204568	8.070974966	8.111687182	8.15599416	7.990551596	0.00613253
11	Slc39a11	69806	8.638145019	8.552295439	8.97040507	8.950021264	8.917740621	8.950708587	0.012863772
3	Slc39a8	67547	6.687348795	6.562250145	6.947762603	7.094837983	7.147903012	6.947903204	0.004403587
4	Slc44a1	100434	6.584746294	6.504991416	6.840408056	6.802720943	6.938700568	6.862970318	0.028674569
5	Slc4a2	20535	7.876483974	7.972111618	8.160137602	8.210117123	8.516816614	8.319482808	0.009983278
5	Slc5a6	330064	8.289904716	8.564478414	8.883905698	8.86904311	8.747426882	8.748531406	0.007626374
10	Slc6a15	103098	7.071108982	7.091245525	7.482389349	7.421850191	7.490906703	7.563667485	0.004132723
19	Slk	20874	7.700576519	7.662827538	7.854961981	8.007553584	8.100819646	7.988818829	0.037839695
17	Slp	NA	6.700862755	6.619870968	7.081369219	6.839456541	7.051019116	7.120268723	0.011960754
11	Slu7	193116	7.01005628	7.078273488	7.296106757	7.392677962	7.374825164	7.282738547	0.044150794
19	Smc5	226026	7.305169203	7.331775276	7.609150531	7.625160375	7.536063703	7.651683894	0.046310823
11	Smek2	104570	7.786979049	7.701976106	7.98655147	8.039754992	8.00068619	8.158000216	0.037284889
13	Smn1	20595	11.5978418	11.45705344	11.8969268	11.91609716	12.14165152	12.07472158	0.001124514
2	Smox	228608	7.207317633	7.448598406	7.952556461	7.941891429	8.124304587	7.961563359	1.45E-05
4	Smpdl3b	100340	9.662855456	9.56554398	10.01124818	9.982466689	9.980728154	10.02170529	0.006604247
8	Snai3	30927	8.993049395	8.999507074	9.25399261	9.371386807	9.395830895	9.188912832	0.03539645
16	Snap29	67474	8.012897727	7.952699233	8.244664458	8.232330067	8.391788213	8.371244494	0.023413271
2	Snapc4	227644	8.796929235	8.718080946	9.076755962	9.168496219	9.191826666	9.147824078	0.006383858
9	Snf1lk2	235344	7.249111068	7.46575137	7.59925354	7.545068898	7.690851167	7.820763153	0.039929889
4	Snip1	76793	8.170262239	8.232655521	8.584233297	8.657370622	8.735469005	8.778959887	0.00095122
11	Snx11	74479	11.02248303	10.70619043	11.22550995	11.22818571	11.35033675	11.37018612	0.003295122
5	Snx17	266781	7.966329587	7.985299227	8.309226997	8.378374931	8.22748952	8.244234522	0.027758734
10	Socs2	216233	10.86921073	10.85528103	11.02440332	11.14834085	11.26740328	11.22550995	0.039960369
2	Sord	20322	8.757838037	8.748531406	9.057494203	9.172011656	9.031748982	8.913266953	0.044800877

14	Sox21	223227	7.652617677	7.570355747	8.14050889	8.050996994	8.2657778	8.323212805	0.000148148
17	Spats1	71020	7.103558825	7.220381153	7.517445077	7.585668135	7.50009844	7.628692285	0.005484407
2	Spef1	70997	7.039729477	7.275855761	7.567600122	7.334111199	7.604545193	7.679679109	0.007676364
18	Spink3	20730	8.561815677	8.658748167	9.451510079	9.352402924	9.436783384	9.45264547	0
18	Spry4	24066	9.137473672	8.856195098	9.554289592	9.403208017	9.628053765	9.412112753	0.000693333
6	Spsb2	14794	7.45722733	7.550981647	7.773700597	7.850795365	7.834602088	7.7673683	0.036561047
13	Sptlc1	268656	9.550061997	9.401836888	10.05137293	9.991006142	10.20204119	10.21294127	4.00E-05
11	Sqstm1	18412	10.24562924	10.27656593	10.73320633	10.62567289	10.76062864	10.56164352	0.004202733
9	Srprb	20818	8.643510437	8.664346532	8.934446496	8.910029588	8.962606701	8.995382491	0.040090074
2	Srxn1	76650	7.709469792	7.736840891	8.496351126	8.479930875	8.641053515	8.558297248	0
9	Stag1	20842	6.695327286	6.413209267	7.022168645	7.031653299	6.9016296	7.225543711	0.000946502
5	Stag3	50878	9.506352478	9.581308066	10.19312193	10.27656593	10.08064586	10.08587349	6.67E-05
X	Stard8	236920	8.694749731	8.582804489	9.414732613	9.494716054	9.220266197	9.288125635	0
17	Stk19	54402	7.626480475	7.59365184	7.952101098	7.857349432	8.026631855	7.951932381	0.018706186
18	Stk32a	269019	7.462097741	7.859589845	8.170642841	8.020505746	8.023268562	8.099216652	0.004435841
4	Stoml2	66592	6.756069997	6.823553559	7.180807675	6.969688187	7.294530537	7.269659658	0.007402597
5	Stx1a	20907	8.451470823	8.407585549	8.688875467	8.817139191	8.828885758	8.739619199	0.017917647
11	Stx8	55943	9.265906519	9.135661493	9.475727293	9.490016488	9.717965203	9.542663459	0.014588983
1	sty	20914	8.861080647	9.003414327	9.418211346	9.486509235	9.427115457	9.429174515	0.000540404
15	Sult4a1	29859	9.478924861	9.395455099	9.78575902	9.857013396	9.917000427	9.903829579	0.002784777
17	Sult6b1	73671	8.55068656	8.352334185	9.157182548	8.697266014	8.824055643	8.583355475	0.013360947
11	Supt4h1	20922	9.080508314	9.152366324	9.542072885	9.428578325	9.37807837	9.626219539	0.007625912
11	Supt4h2	20923	11.50040492	11.43129485	11.8285044	11.89423768	11.91239188	11.83504959	0.004725702
5	Supti7l	72195	7.998114821	8.027169379	8.370357106	8.370506709	8.46084504	8.433517602	0.005354298
4	Svep1	64817	7.446883205	7.636121742	7.877841203	7.745989331	7.821869979	8.060946286	0.021769417
7	Syce1	74075	6.658783042	6.516126557	6.993753175	7.218037223	7.049229514	7.341174387	0.000201439
10	Syde1	71709	6.987238039	7.053295795	7.262570558	7.41664875	7.395490363	7.448989709	0.01214375
9	Syncrip	56403	8.026826445	8.243341706	8.630767923	8.531874455	8.427238153	8.349052056	0.015631944
6	Tacstd2	56753	7.425756579	7.236896151	8.104605724	8.265534707	8.064362794	7.95995194	0
1	Tada1l	27878	7.117999516	7.055802828	7.285955058	7.384917455	7.481996257	7.532107698	0.02158486
11	Tada2l	217031	10.96829833	10.91446505	11.29716732	11.37447337	11.18972963	11.10381857	0.037347743
4	Taf12	66464	9.496991059	9.743973078	10.05861188	10.07582199	10.19605216	10.08672976	0.001102767
Z	Taf1a	21339	8.342253011	8.351373935	8.86904311	8.743946149	9.140861239	8.999077962	0.00015534
X	Taf7l	74469	7.066960435	6.978651685	7.388274345	7.385481445	7.620552072	7.5536395	0.001458904
6	Tagln3	56370	7.048894334	7.163824419	7.422190336	7.495015065	7.502544222	7.590275638	0.005489583
13	Targ1	21360	7.35977325	7.360356615	7.712970203	7.615510867	7.801547469	7.894136127	0.005839836

X	Tbc1d25	209815	8.369000417	8.385782848	8.617005107	8.726016772	8.725078495	8.701916815	0.028760215
17	Tbcc	72726	10.20865726	9.973421001	10.68790169	10.6422706	10.85018386	10.68589219	6.90E-05
9	Tbrg1	21376	10.95239015	10.81559753	11.20177754	11.26875923	11.2449304	11.29165496	0.009994975
11	Tbrg4	21379	10.97910358	11.19483383	11.4050059	11.38437981	11.42119281	11.35760327	0.037748084
5	Tbx3	21386	8.150505551	7.984178921	8.435037779	8.562459066	8.581795067	8.583855663	0.001294545
X	Tceal5	331532	8.285007422	8.198573287	8.915793541	8.862084912	8.751916576	8.660619302	0.000206897
2	Tcfap2c	21420	7.905011715	7.768476022	8.355280382	8.178657743	8.430357656	8.189845772	0.001791667
1	Tcfcp2l1	81879	11.22949866	11.22300376	11.62845231	11.71450842	11.61451906	11.65935547	0.002586207
Z	Tcstv1	54382	6.944043748	7.018608674	7.240997412	7.300380271	7.439133672	7.487016453	0.007411111
Z	Tcstv3	236219	7.251619228	7.375760495	7.953487978	7.885375877	8.103185593	8.104434328	0
9	Tcta	102791	7.617686305	7.557082089	8.047621799	8.09131369	8.085785563	8.112258205	0.00067713
17	Tcte3	21647	6.663308796	6.669680909	6.912736057	6.892354213	6.990411846	7.05238457	0.042297587
14	Tdrd3	219249	7.278426573	7.199317354	7.46669718	7.531451894	7.648207943	7.569162025	0.030468421
3	Tdrkh	72634	8.741411878	8.9792143	9.199932928	9.188912832	9.226098422	9.080049907	0.03263347
4	Tek	21687	7.488560135	7.254013858	7.729313433	7.624815139	7.729186172	7.777854913	0.01721004
11	Tekt1	21689	8.264373817	8.23453843	8.469234241	8.650063487	8.566008645	8.543865637	0.033943831
8	Terf2ip	57321	7.324480242	7.244379564	7.439601398	7.536462119	7.662827538	7.74716344	0.035737305
4	Tex10	269536	9.016411611	9.015262317	9.263555458	9.391157037	9.267443191	9.417227959	0.025648376
X	Tex11	83558	6.874986131	6.897904875	7.558447102	7.738095307	7.479817463	7.546858013	0
X	Tex13	83555	6.575262806	6.494739885	6.910494054	6.942565493	6.985377061	6.912302748	0.004635371
11	Tex14	83560	8.483876515	8.468006194	8.99369489	9.288898717	9.129835882	9.060961254	2.78E-05
11	Tex19	73679	11.32017463	11.1382173	12.35373469	12.10971105	12.43218882	12.27917665	0
5	Tfip11	54723	8.214529384	8.078942772	8.545988081	8.386588326	8.589417075	8.515651816	0.011600639
7	Tfpt	69714	8.756685994	8.860155436	9.045504935	9.059032282	9.180552029	9.279961005	0.022097356
7	Tgfb1	21803	6.864509858	6.786347441	7.082332889	7.278383198	7.160576289	7.136333551	0.017783748
9	Tgfb2	21813	6.903713347	6.822511494	7.135070196	7.283470834	7.274367463	7.255970931	0.008855903
14	Tgm1	21816	8.445450773	8.426088191	9.404181897	9.496991059	9.490978056	9.169369264	0
17	Thada	240174	8.684872753	8.782503885	9.126210173	9.212395499	9.16511469	9.219748308	0.001861635
6	Tigd2	68140	7.628924881	8.013644635	8.072118956	8.133260533	8.050067627	8.336724058	0.032299587
2	Timm10	30059	9.38583055	9.148016661	9.578767338	9.607620591	9.693797779	9.737188171	0.007492647
1	Timm17a	21854	11.86375886	11.87904428	12.14491784	12.14491784	12.19849296	12.26896625	0.026888274
11	Tlcd1	68385	9.468251267	9.601348333	9.945837051	9.823668403	9.944042215	9.839962057	0.013158519
11	Tlk2	24086	8.524814195	8.46100643	8.830202547	8.624714687	8.794156099	9.100111711	0.018895887
1	Tmco1	68944	8.657370622	8.396111358	8.778217185	8.868161006	8.746404048	8.926269477	0.040564103
9	Tmem108	81907	8.446237595	8.402375335	8.793468925	8.921957321	8.860462803	8.883905698	0.002103245
5	Tmem128	66309	7.129390167	7.215630815	7.660807265	7.438754107	7.458372414	7.481883369	0.017756899

5	Tmem130	243339	7.096429905	7.077618065	7.626906183	7.80020572	7.606953964	7.690529898	0.000112245
7	Tmem16j	71345	8.387825959	8.483876515	8.841077705	8.885441726	8.781115745	8.543198918	0.023626157
1	Tmem177	66343	8.469609489	8.593199019	8.701916815	8.816715232	8.930945484	8.945778397	0.031945946
1	Tmem185b	226351	9.004927323	8.92381763	9.174928573	9.205363073	9.41695504	9.380897886	0.024251435
10	Tmem19	67226	8.464052113	8.339171183	8.649840439	8.914324454	8.707917118	8.722069667	0.015831044
4	Tmem68	72098	7.245720652	7.308506864	7.45971724	7.577690192	7.643521899	7.734066971	0.025155505
3	Tmem79	71913	7.822307916	7.835364555	8.112010512	8.090095877	8.128519966	8.194557473	0.035640824
2	Tmem87a	211499	9.146058768	9.20915306	9.467767786	9.416191982	9.550893356	9.52348791	0.030909664
10	Tmpo	21917	7.95995194	7.874776215	8.261881352	8.254585095	8.482871976	8.415249001	0.002543011
17	Tnfrsf12a	27279	9.437230361	9.502066135	10.23240183	10.15812075	10.39874096	10.39982052	0
9	Tnfrsf22	79202	7.752103525	7.9193857	8.501805194	8.266382147	8.409784582	8.437989159	0.000164063
11	Tnk1	83813	9.066305973	9.3309478	9.568100335	9.665977976	9.405029357	9.404181897	0.034230539
11	Tns3	319939	8.971780294	9.002478207	9.523093038	9.398408727	9.277835937	9.106950097	0.018569211
11	Tns4	217169	7.033741809	7.121952565	7.711583289	7.560583259	7.533761495	7.568489363	0.000452128
11	Tom11	71943	7.399896361	7.458670555	7.821286201	7.78677603	7.84073489	7.602445069	0.020668727
16	Top3b	21976	8.396111358	8.492562781	8.860792207	9.002478207	8.820598302	8.811317739	0.002568
4	Topors	106021	10.0334782	9.981539855	10.42927774	10.4339249	10.6422706	10.56725563	0.000543147
7	Tpcn2	233979	7.340856855	7.300203814	7.536063703	7.618005977	7.683954315	7.646775808	0.039682451
6	Tprkb	69786	9.0637303	9.159183931	9.525182748	9.491981139	9.73442971	9.473490388	0.00218314
9	Trex1	22040	7.361441475	7.290581386	7.64973864	7.51147751	7.800822037	7.618567397	0.029654915
5	Triap1	69076	9.003177039	9.00841709	9.423988178	9.408594449	9.516444591	9.493882685	0.001657807
11	Trim41	211007	9.681230555	9.419145692	10.01195819	9.700134754	10.09152467	9.96784427	0.00693633
19	Trim8	93679	10.68790169	10.52419473	10.91169271	10.99135046	11.00502418	10.97982228	0.010795752
8	Triml1	244448	9.204501331	9.047304871	9.501754893	9.492348722	9.46953137	9.335807921	0.02362297
1	Trip12	14897	10.52774551	10.63457943	10.77389773	10.88956305	10.81908452	11.04988623	0.039771006
6	Trnt1	70047	10.02816561	9.906199384	10.24701032	10.35357422	10.35973169	10.38709408	0.010071786
1	Trove2	20822	7.5493645	7.608177836	8.00672846	7.862606847	7.726479411	7.876362522	0.04578223
4	Trp53inp1	60599	10.13620476	10.13053687	10.36435	10.65498392	10.44411145	10.50930768	0.012163807
2	Trp53rk	76367	7.093099236	7.220219197	7.439321316	7.323329097	7.772973702	7.574131825	0.012768882
11	Trpv2	22368	7.749594416	7.775441037	8.133937652	8.107827446	8.049634848	8.065736827	0.021186275
2	Trub2	227682	11.31453739	11.27225431	11.69649458	11.84668947	11.94077962	11.71019131	0.000590476
14	Tsc22d1	21807	8.60479707	8.648774851	9.20397755	9.242526565	9.349372859	9.420703196	1.61E-05
12	Tssc1	380752	8.36093336	8.598192299	8.72408065	8.658748167	8.930085506	9.000221623	0.019271338
11	Ttc1	66827	10.05813565	10.24027242	10.55839072	10.58510557	10.71424865	10.82046458	0.000449735
11	Ttc19	72795	9.514617309	9.633951868	9.8610892	9.752050277	9.963206555	9.963806169	0.03481746
15	Ttc33	67515	7.056564777	7.058167512	7.558750002	7.55504784	7.530057405	7.563281465	0.000678733

7	Ttyh1	57776	7.23889295	7.460125514	7.571374662	7.763602227	7.693173593	7.638478078	0.030810726
6	Tuba3a	22144	10.37035021	10.28052409	10.99365213	10.89915793	11.20177754	11.05854698	0
3	Tuft1	22156	8.650900895	8.610618898	9.071150687	9.149844767	9.015515067	9.037164709	0.002169591
18	Txn14a	27366	11.14330947	11.36964667	11.61451906	11.52835279	11.5720918	11.72254653	0.014416193
3	Ube2d3	66105	7.175988966	7.342302943	7.460338793	7.471219087	7.567325439	7.738442683	0.044164613
2	Ubox5	140629	9.38812244	9.402750722	9.717754652	9.709919019	9.876596719	9.611043383	0.020768758
13	Ubx8	76577	8.166878596	8.067809356	8.333987949	8.396819518	8.632350648	8.653088457	0.008401408
16	Ufd1l	22230	7.045671128	7.358623733	7.437606329	7.518577769	7.569162025	7.553692815	0.034293532
13	Uimc1	20184	6.908786487	6.973827448	7.337958872	7.218342239	7.334377405	7.334242148	0.010596721
16	Umps	22247	10.71849441	10.45127696	10.86109689	10.98887305	10.8973905	10.97796861	0.016567244
5	Unc119b	106840	7.829464658	7.572291798	8.065736827	8.002664903	8.05838623	7.964989237	0.027072687
4	Unc13b	22249	8.706687048	8.826888205	9.448102274	9.395830895	9.402101974	9.536134805	1.64E-05
5	Ung	22256	8.484692738	8.350681076	8.694904016	8.634394101	9.002478207	8.601928711	0.035113524
2	Upf2	326622	10.58679066	10.48703114	11.05854698	11.19080524	11.07979668	11.09690259	0.000165354
7	Uros	22276	6.971091833	7.139160641	7.328340773	7.197555014	7.453843263	7.459928923	0.041098553
16	Usp16	74112	8.597787416	8.488677336	9.028154544	8.997059869	8.974878746	9.079224734	0.001113281
2	Usp8	84092	8.780384694	8.635396374	9.082246747	9.121571458	9.071150687	9.057494203	0.008079787
6	Vamp8	22320	7.868296365	8.063345986	8.298028493	8.342739594	8.276313594	8.134869251	0.043117229
16	Vgll3	73569	7.601315388	7.736385019	8.043603001	7.808288693	7.971931834	8.035286854	0.04423219
9	Vprbp	321006	9.188912832	9.185017766	9.499428575	9.551559637	9.764365703	9.449328341	0.008652098
17	Vps52	224705	7.002138521	7.047053102	7.439133672	7.373352952	7.462422049	7.356951471	0.006900563
11	Vps53	68299	9.723029051	9.887020684	10.13725951	10.13974124	10.14924874	10.152225	0.017815445
19	Vti1a	53611	7.039249493	6.998072881	7.23889295	7.362000369	7.378165808	7.319488202	0.035669599
X	Wbp5	22381	12.20831532	12.06922554	12.51295302	12.43765238	12.39293285	12.38978605	0.041088528
5	Wdr1	22388	9.728719398	9.606431935	10.09769532	10.09769532	10.08234401	10.23761296	0.001449827
X	Wdr45	54636	8.235159391	8.07697875	8.565221776	8.55885976	8.663839194	8.593838268	0.002336158
19	Wdr74	107071	10.23017619	10.13920062	10.58916373	10.6405686	10.63547639	10.67641456	0.001683007
16	Wdr8	59002	7.759586464	7.832813496	8.11552048	8.215399833	8.303345493	8.107642444	0.006590291
11	Wnt3a	22416	6.715260851	6.739611296	6.93789138	7.015179364	7.037734728	7.151414295	0.034112112
11	Wnt9a	216795	8.442170715	8.480492496	8.831011825	8.774550742	8.729233183	8.876485133	0.015924761
11	Wsb1	78889	9.123029287	9.327923481	9.676414374	9.737692001	9.696075615	9.767797755	0.000772152
X	Xlr3a	22445	8.033498988	7.886076878	8.417979293	8.609279992	8.491929352	8.587091254	0.00019697
X	Xlr4b	27083	6.803309363	6.983546319	7.874626108	7.958506896	7.600735183	7.730029348	0
15	Xpnpep3	321003	8.641498936	8.75016399	9.055395079	9.064702129	9.084335239	9.106437416	0.007369888
5	Xrcc2	57434	7.828766487	7.602964662	7.926316928	7.988818829	8.171069434	7.976679079	0.0465
19	Yif1	NA	9.857658805	9.860642055	10.07021974	10.23017619	10.08735489	10.24231078	0.039747456

11	Ykt6	56418	10.4202309	10.28139764	10.69262843	10.59002081	10.6967517	10.63457943	0.036509709
2	Yme111	27377	7.512840309	7.712888411	7.955538394	7.967719122	7.906594215	8.049173946	0.012833083
1	Yod1	226418	6.841235054	6.877497133	7.064238494	7.165350848	7.279516468	7.221522471	0.026666297
5	Ythdc1	231386	9.826855709	9.974128299	10.11091543	10.21822778	10.11367792	10.34230351	0.045163176
4	Ythdf2	213541	7.202075846	7.254341021	7.625572074	7.563211239	7.658751477	7.494882523	0.012533026
5	Ywhag	22628	6.932076111	7.110210085	7.552121471	7.42231126	7.610050188	7.643115756	0.000317073
10	Zbtb24	268294	8.270034265	8.154988997	8.480492496	8.536763087	8.588527639	8.630404519	0.015895748
6	Zc3hc1	232679	8.968062292	8.991888139	9.214568443	9.35429844	9.43105305	9.289994613	0.017710526
4	Zcchc7	319885	8.405050616	8.349380452	8.762715372	8.81012208	8.740620574	8.756977385	0.00592449
5	Zcchc8	70650	10.122955	9.838388394	10.29681384	10.32237621	10.43917135	10.27166849	0.016090041
5	Zcwpw1	381678	7.509447389	8.005143189	8.287629759	8.066854495	8.101548585	8.211015519	0.006567251
19	Zdhhc16	74168	8.361406642	8.07568715	8.562459066	8.571956724	8.579829895	8.552295439	0.016155102
18	Zeb1	21417	7.432062619	7.261542303	7.600333931	7.651683894	7.846931358	7.707289004	0.015263675
5	Zfand2a	100494	8.27079943	8.338229387	8.620340302	8.549893244	8.790832764	8.668528192	0.01418
6	Zfml	18139	10.14498681	10.11166496	10.65109353	10.69827693	10.55384293	10.67299702	0.000425414
17	Zfp13	22654	7.908621567	7.907661924	8.206282478	8.242041873	8.27190095	8.146433076	0.031611053
16	Zfp148	22661	8.375340935	8.437088988	8.753931001	8.747727676	8.635396374	8.714390122	0.032155763
13	Zfp184	193452	8.038471591	8.116885598	8.487380735	8.513152873	8.564247895	8.507658782	0.00217971
X	Zfp185	22673	7.627309822	7.951271455	8.530127599	8.583647554	8.472748215	8.398676222	0
6	Zfp248	72720	6.906389072	6.935372236	7.193012842	7.252473424	7.215948801	7.228719685	0.035484729
7	Zfp28	22690	7.619038147	7.74716344	8.009162711	8.010469136	7.951271455	7.91654421	0.047649829
16	Zfp295	114565	6.647564254	7.042124057	7.121438876	7.084337424	7.355323597	7.525872294	0.004415179
11	Zfp3	193043	7.503725661	7.546161386	8.199608436	8.113264745	8.249472209	8.061517996	6.33E-05
18	Zfp35	22694	7.308977962	7.236510008	7.59422124	7.659053825	7.467822019	7.668304112	0.022622038
11	Zfp39	22698	7.716543436	7.885375877	8.2087539	8.156149526	8.462498536	8.232330067	0.00162
6	Zfp398	272347	6.970154432	6.950592595	7.25884279	7.240364336	7.35176484	7.320396878	0.020303483
15	Zfp41	22701	8.161318741	8.415503002	8.486814442	8.675882109	8.702739139	8.630059055	0.022680801
17	Zfp422-rs1	77652	7.214538103	7.387451731	7.787869238	7.626581825	7.653001437	7.648413877	0.00803405
13	Zfp459	328274	8.541474821	8.390034795	8.729233183	8.737721648	8.858230512	8.81884506	0.027945593
4	Zfp46	22704	7.230767629	7.209685118	7.484776229	7.467647293	7.711583289	7.612805085	0.015886301
17	Zfp472	224691	8.177670957	8.362830545	8.588293938	8.563226881	8.605142288	8.643510437	0.022701651
9	Zfp560	434377	7.527012491	7.426604622	7.949479213	7.740087758	7.776042641	7.751268879	0.022059952
7	Zfp566	72556	7.412545846	7.495971163	7.819300803	7.801547469	7.997381837	7.797713875	0.005273109
17	Zfp57	22715	9.102833883	8.71481004	9.309176083	9.186961521	9.52085873	9.333511024	0.003681604
15	Zfp623	78834	8.063345986	8.15599416	8.430726236	8.572393345	8.579488108	8.629229987	0.002174927
6	Zfp637	232337	8.716468811	8.825655043	9.456511471	9.545350688	9.599743135	9.225340282	1.79E-05

5	Zfp655	72611	9.866248711	9.657538195	10.00770382	10.15081055	10.1417668	10.17220652	0.013743849
11	Zfp750	319530	6.862926068	6.89407746	7.196158645	7.215692802	7.251151281	7.257953305	0.013028232
7	Zfp94	22756	7.962784934	7.975642687	8.178926162	8.211015519	8.410698721	8.28017092	0.041355275
13	Zfyve16	218441	6.686673392	6.802470134	7.132130854	7.13169571	7.133052203	7.278489726	0.00297733
6	Zfyve20	78287	8.4827299	8.025890664	8.671361208	8.699557064	8.797930438	8.768949099	0.001434028
4	Zfyve9	230597	7.423167256	7.266797537	7.718681813	7.774911368	7.70263012	7.670421602	0.008640489
5	Zkscan14	67235	7.637756992	7.581850777	8.039531724	8.219042372	8.260297028	8.208439161	0.000168067
11	Zkscan6	52712	9.030039131	8.898144494	9.279127346	9.370776202	9.473490388	9.284066788	0.007246269
11	Zmat5	67178	8.860155436	9.047725928	9.310779736	9.40576289	9.445232671	9.251701313	0.005343096
19	Znhit2	29805	8.67561971	8.591922857	8.993229072	9.122464228	9.117118581	9.133295224	0.001590604
17	Znrd1	66136	11.19080524	11.25845199	11.47027586	11.49890238	11.78656619	11.57513509	0.013698551
13	Zscan12	22758	8.701269454	8.592637453	9.022991801	9.099195327	9.048864661	8.975901601	0.006052632
2	Zswim3	67538	7.789140885	7.936871152	8.083914755	8.307477036	8.136689917	8.211272241	0.027056291