



<https://alona.PanglaoDB.se>

## 1 Input details

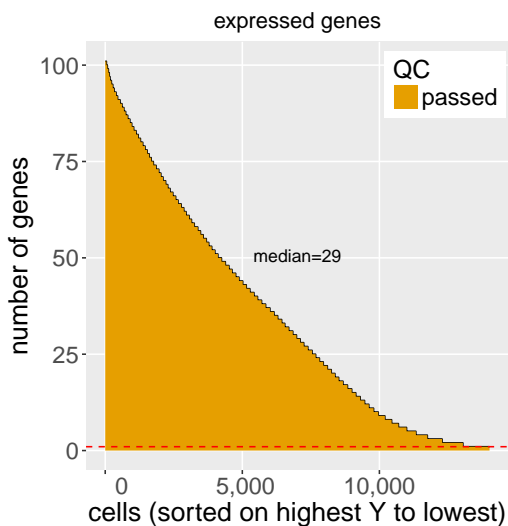
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filename	sequencing-T-memory.zip
size	2.17 MiB
job id	5cc6c7acd8415
time finished	2019-04-29T10:34:44 UTC
description	NA
md5	0ed95fa7b00a704ed5747eb194bdd5f7
time uploaded	Mon Apr 29 2019 17:45:11 GMT+0800 (äÿñâŽ;æăĈăĜĚæŮúéŮt)
species	<i>Homo sapiens</i>
data type	Normalized counts
QC strategy	min. 1 expressed genes per cell
delimiter	TAB
header	Yes
full length mRNA-seq	Yes
cell cluster statistic	median
remove mitochondrial genes	No
cluster resolution	small

## 2 Quality filtering

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The red line indicates the pre-defined filtering threshold.



The plot normally shown in this box is not applicable if data are not raw read counts.

## 2.1 Metrics

- 101 out of 101 cells were used in the analysis.
- 1 genes could not be mapped to internal gene symbols (unused genes are listed in section 10). This is usually because of a non-standard or non-official gene symbol/alias.
- 13,044 genes were used in the analysis.
- 3 cell cluster(s) were formed.
- 2 cell type(s) were predicted.

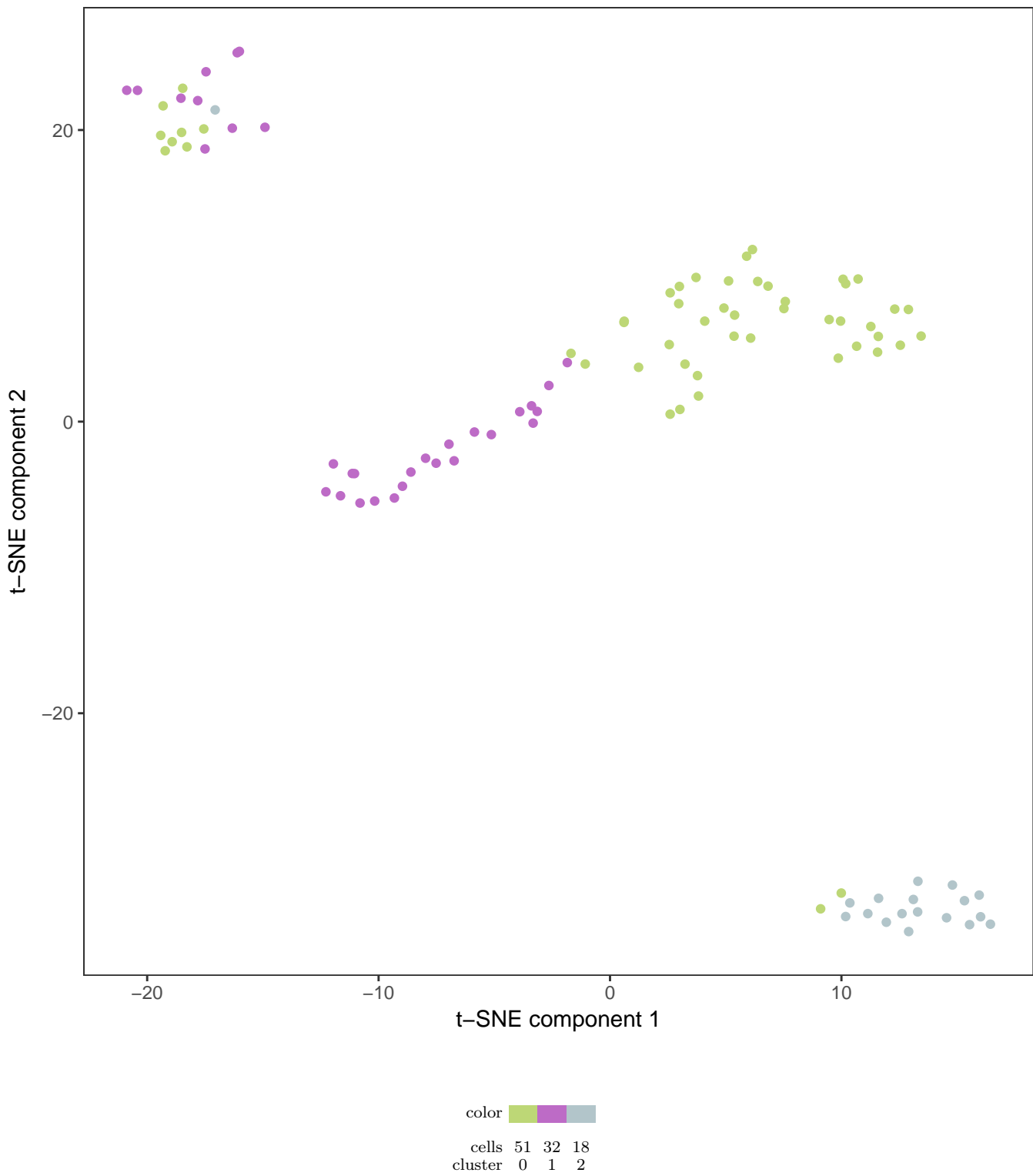
### 3 Top 20 expressed genes

This is a list of the top 20 most expressed genes in the data. Genes were ranked across all clusters.

symbol	description	biotype	median	mad
<i>B2m</i>	beta-2-microglobulin	protein-coding gene	3.499	0.064
<i>Rps27</i>	ribosomal protein S27	protein-coding gene	3.416	0.099
<i>Cd74</i>	CD74 molecule	protein-coding gene	3.413	0.160
<i>Rpl41</i>	ribosomal protein L41	protein-coding gene	3.393	0.088
<i>Actb</i>	actin beta	protein-coding gene	3.391	0.082
<i>Rps18</i>	ribosomal protein S18	protein-coding gene	3.340	0.080
<i>Rpl19</i>	ribosomal protein L19	protein-coding gene	3.338	0.069
<i>Rps3a1</i>	ribosomal protein S3A1	protein coding gene	3.336	0.097
<i>Rpl3</i>	ribosomal protein L3	protein-coding gene	3.336	0.104
<i>Rps4x</i>	ribosomal protein S4 X-linked	protein-coding gene	3.332	0.108
<i>Rps14</i>	ribosomal protein S14	protein-coding gene	3.286	0.084
<i>Rpl7</i>	ribosomal protein L7	protein-coding gene	3.282	0.095
<i>Rps5</i>	ribosomal protein S5	protein-coding gene	3.271	0.113
<i>Rps28</i>	ribosomal protein S28	protein-coding gene	3.254	0.099
<i>Rps25</i>	ribosomal protein S25	protein-coding gene	3.253	0.098
<i>Rps11</i>	ribosomal protein S11	protein-coding gene	3.245	0.085
<i>Rps13</i>	ribosomal protein S13	protein-coding gene	3.245	0.106
<i>Gm10036</i>	uncharacterized transcript		3.234	0.093
<i>Rps15a</i>	ribosomal protein S15a	protein-coding gene	3.220	0.112
<i>Rpl4</i>	ribosomal protein L4	protein-coding gene	3.219	0.106

## 4 t-distributed stochastic neighbor embedding (t-SNE)

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## 5 Cell type predictions

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### 5.1 Machine learning

These results are based on the machine learning classifier. Details of cell to cluster mappings is found in section 9.

cluster <sup>a</sup>	no. cells <sup>b</sup>	% cells	genes <sup>c</sup>	cell type	probability <sup>d</sup>
0	51	50.500	4,470	T memory cells	0.785
1	32	31.680	6,622	T memory cells	0.098
2	18	17.820	3,164	Dendritic cells	0.175

<sup>a</sup> Cluster identifier.

<sup>b</sup> Number of cells in the cluster.

<sup>c</sup> For each cell in the cluster, counting the number of genes with > 0 expression and reporting the median.

<sup>d</sup> Model probability reported by the SVM.

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### 5.2 Hypergeometric test

These results are purely based on marker genes. Green rows indicate significant associations. The following markers were used: [https://panglaodb.se/markers/Panglaodb\\_markers\\_28\\_Apr\\_2019.tsv.gz](https://panglaodb.se/markers/Panglaodb_markers_28_Apr_2019.tsv.gz)

cluster <sup>a</sup>	cell type	activity score <sup>b</sup>	p-value <sup>c</sup>	adjusted p-value <sup>d</sup>	significance <sup>e</sup>
0	T memory cells	45	3.6e-10	1.9e-07	*
1	T memory cells	31	1.2e-09	2.1e-07	*
2	Plasmacytoid dendritic cells	40	7.4e-10	1.9e-07	*

<sup>a</sup> Cluster identifier.

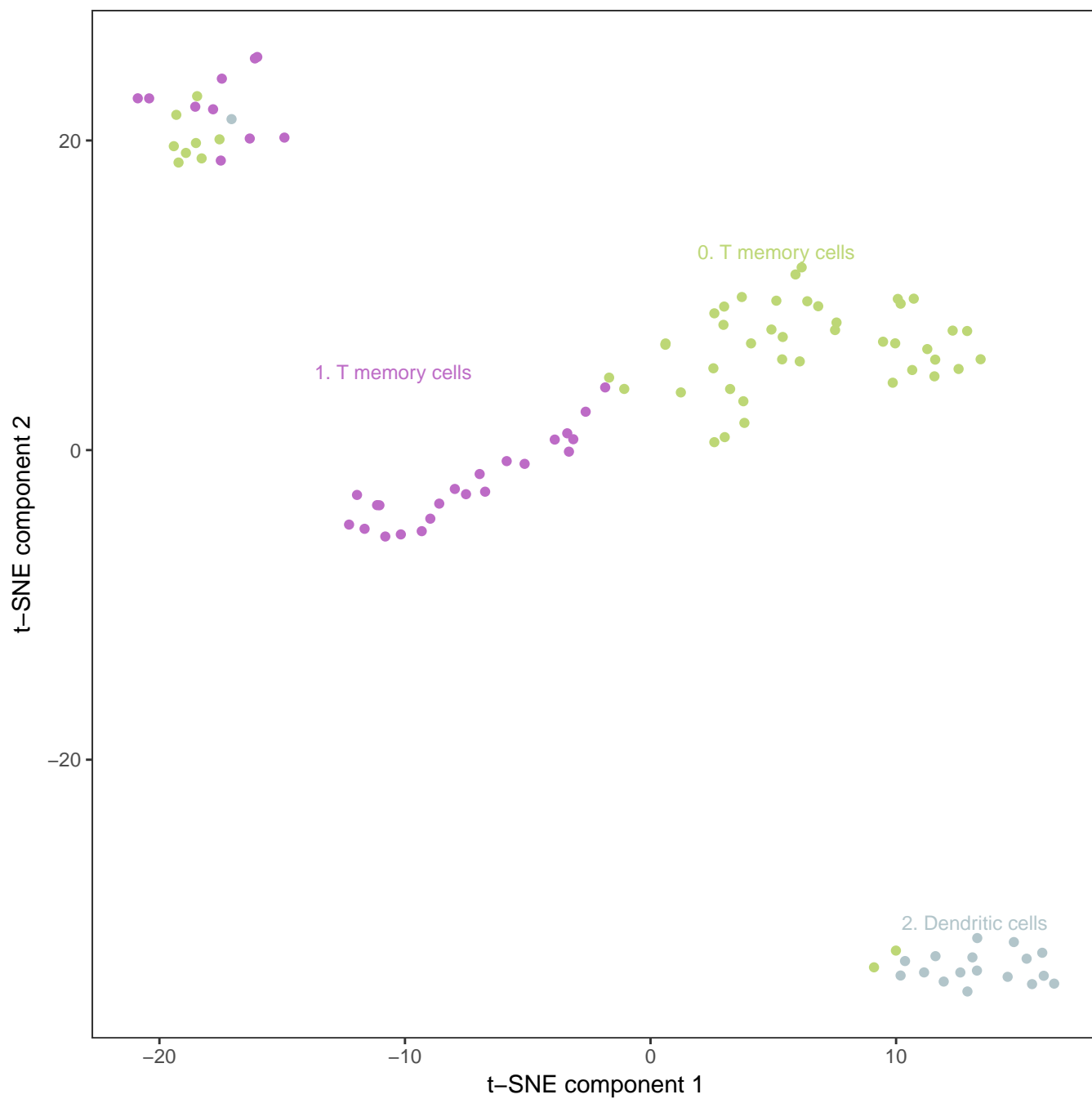
<sup>b</sup> Activity score of expressed marker genes.

<sup>c</sup> P-value from a hypergeometric test.

<sup>d</sup> Adjusted p-value based on the Benjamini-Hochberg procedure.

<sup>e</sup> \* significant at FDR<10%.

## 6 Annotated t-SNE



## 7 Top 20 expressed genes per cluster

### 7.1 cluster 0 - T memory cells (n=51; prob=0.785)

symbol	description	biotype	median
<i>B2m</i>	beta-2-microglobulin	protein-coding gene	3.486
<i>Rps27</i>	ribosomal protein S27	protein-coding gene	3.435
<i>Cd74</i>	CD74 molecule	protein-coding gene	3.412
<i>Rpl41</i>	ribosomal protein L41	protein-coding gene	3.406
<i>Actb</i>	actin beta	protein-coding gene	3.406
<i>Rps4x</i>	ribosomal protein S4 X-linked	protein-coding gene	3.388
<i>Rpl3</i>	ribosomal protein L3	protein-coding gene	3.378
<i>Rps3a1</i>	ribosomal protein S3A1	protein coding gene	3.368
<i>Rps18</i>	ribosomal protein S18	protein-coding gene	3.364
<i>Rpl19</i>	ribosomal protein L19	protein-coding gene	3.358
<i>Rps5</i>	ribosomal protein S5	protein-coding gene	3.330
<i>Rpl7</i>	ribosomal protein L7	protein-coding gene	3.322
<i>Rps14</i>	ribosomal protein S14	protein-coding gene	3.297
<i>Rpl8</i>	ribosomal protein L8	protein-coding gene	3.270
<i>Rps13</i>	ribosomal protein S13	protein-coding gene	3.270
<i>Gm10036</i>	uncharacterized transcript		3.269
<i>Rps28</i>	ribosomal protein S28	protein-coding gene	3.269
<i>Rps25</i>	ribosomal protein S25	protein-coding gene	3.268
<i>Rpl4</i>	ribosomal protein L4	protein-coding gene	3.254
<i>Rpl30</i>	ribosomal protein L30	protein-coding gene	3.249

Markers: *Ptprcap*, *Ltb*, *Cd3d*, *Sell*, *Ptprc*, *Cd69*, *Il7r*, *Ccr7*, *Lck*, *Cytip*, *Rhoh*, *Arhgap15*, *Cd27*, *Cd2*, *Arhgef1*, *Dgka*, *Bin2*, *Tbc1d10c*, *Cd3g*, *Gimap4*, *Cd3e*, *Cd4*, *Lat*, *Tcf7*, *Cd247*, *Skap1*, *Gimap1*, *Lef1*, *Ikzf1*, *Ccr6*, *Apbb1ip*, *Satb1*, *Acp5*, *Enpp1*, *Cd28*, *Epsti1*, *Kpna4*

## 7.2 cluster 1 - T memory cells (n=32; prob=0.098)

symbol	description	biotype	median
<i>B2m</i>	beta-2-microglobulin	protein-coding gene	3.529
<i>Actb</i>	actin beta	protein-coding gene	3.425
<i>Rps27</i>	ribosomal protein S27	protein-coding gene	3.417
<i>Rpl41</i>	ribosomal protein L41	protein-coding gene	3.383
<i>Rps18</i>	ribosomal protein S18	protein-coding gene	3.341
<i>Rpl19</i>	ribosomal protein L19	protein-coding gene	3.302
<i>Rpl3</i>	ribosomal protein L3	protein-coding gene	3.301
<i>Rps4x</i>	ribosomal protein S4 X-linked	protein-coding gene	3.294
<i>Cd74</i>	CD74 molecule	protein-coding gene	3.288
<i>Rps14</i>	ribosomal protein S14	protein-coding gene	3.280
<i>Rps25</i>	ribosomal protein S25	protein-coding gene	3.238
<i>Rps3a1</i>	ribosomal protein S3A1	protein coding gene	3.231
<i>Rps11</i>	ribosomal protein S11	protein-coding gene	3.229
<i>Rps28</i>	ribosomal protein S28	protein-coding gene	3.229
<i>Rpl7</i>	ribosomal protein L7	protein-coding gene	3.226
<i>Gm10036</i>	uncharacterized transcript		3.197
<i>Rps15</i>	ribosomal protein S15	protein-coding gene	3.193
<i>Rps5</i>	ribosomal protein S5	protein-coding gene	3.188
<i>Rps13</i>	ribosomal protein S13	protein-coding gene	3.187
<i>Rps15a</i>	ribosomal protein S15a	protein-coding gene	3.180

Markers: *Ptprcap*, *Cd3d*, *Cd69*, *Ptprc*, *Sell*, *Gimap4*, *Lck*, *Cytip*, *Nkg7*, *Cd2*, *Rhoh*, *Arhgap15*, *Lat*, *Tbc1d10c*, *Il7r*, *Bin2*, *Cd27*, *Ccr7*, *Cd3g*, *Cd4*, *Ltb*, *Cd3e*, *Dgka*, *Arhgef1*, *Acp5*, *Cd247*, *Skap1*, *Apbb1ip*, *Tcf7*, *Epsti1*, *Ikzf1*, *Gimap1*, *Ccr6*, *Itgb7*, *Cd28*, *Satb1*, *Cd7*, *Lef1*, *Ccr5*, *Icos*, *Kpna4*, *Itgae*, *Enpp1*, *S100a9*, *Grap2*, *Bcl2*, *Cxcr6*



### 7.3 cluster 2 - Dendritic cells (n=18; prob=0.175)

symbol	description	biotype	median
<i>Cd74</i>	CD74 molecule	protein-coding gene	3.557
<i>B2m</i>	beta-2-microglobulin	protein-coding gene	3.530
<i>Rps27</i>	ribosomal protein S27	protein-coding gene	3.378
<i>Rpl41</i>	ribosomal protein L41	protein-coding gene	3.365
<i>Rps3a1</i>	ribosomal protein S3A1	protein coding gene	3.333
<i>Rpl19</i>	ribosomal protein L19	protein-coding gene	3.315
<i>Rpl3</i>	ribosomal protein L3	protein-coding gene	3.312
<i>Rps4x</i>	ribosomal protein S4 X-linked	protein-coding gene	3.310
<i>Rps18</i>	ribosomal protein S18	protein-coding gene	3.300
<i>Rps11</i>	ribosomal protein S11	protein-coding gene	3.288
<i>Rps14</i>	ribosomal protein S14	protein-coding gene	3.288
<i>Actb</i>	actin beta	protein-coding gene	3.274
<i>Rps13</i>	ribosomal protein S13	protein-coding gene	3.272
<i>Rps28</i>	ribosomal protein S28	protein-coding gene	3.256
<i>Gpr183</i>	G protein-coupled receptor 183	protein-coding gene	3.246
<i>Rps5</i>	ribosomal protein S5	protein-coding gene	3.244
<i>Irf8</i>	interferon regulatory factor 8	protein-coding gene	3.226
<i>Rplp0</i>	ribosomal protein lateral stalk subunit P0	protein-coding gene	3.217
<i>Rpl7</i>	ribosomal protein L7	protein-coding gene	3.216
<i>Rpl4</i>	ribosomal protein L4	protein-coding gene	3.209

Markers: *Irf8*, *Cxcr4*, *Plac8*, *Irf7*, *Rnase6*, *H2-DMA*, *Cxcr3*, *S100a4*, *Ctss*, *Dnase1l3*, *Slamf7*, *Ptpnc*, *Tlr7*, *Nr4a3*, *Fgd2*, *Adam19*, *Cd83*, *H2afy*, *Ap1s3*, *Dab2*, *Ccl22*, *Clec7a*, *Napsa*, *Etv6*, *Flt3*, *Axl*, *Lamp3*, *Cxcl16*, *Kmo*

## 8 Appendix - Top 10 cell type predictions

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### 8.1 cluster 0

cell type	probability
T memory cells	0.785
T cells	0.095
B cells	0.016
Dendritic cells	0.013
Macrophages	0.004
Podocytes	0.004
Neutrophils	0.004
Neurons	0.003
Melanocytes	0.003
Unknown	0.003

### 8.2 cluster 1

cell type	probability
T memory cells	0.098
T cells	0.093
Neutrophils	0.047
Macrophages	0.047
Dendritic cells	0.041
Podocytes	0.032
Melanocytes	0.030
B cells	0.024
Germ cells	0.023
Neurons	0.022

### 8.3 cluster 2

cell type	probability
Dendritic cells	0.175
T memory cells	0.066
Macrophages	0.050
Unknown	0.047
Neutrophils	0.041
B cells	0.035
T cells	0.029
Alveolar macrophages	0.020
Microglia	0.018
Platelets	0.017

## 9 Appendix - cell to cluster assignments

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1. cluster cell	35. 0 cy94_cd45pos_D08_S14...	69. 1 CY84_PRIM_POS_All_7_...
2. 0 cy72-CD45-pos-H12-S9...	36. 0 cy94_cd45pos_D09_S14...	70. 1 CY84_PRIM_POS_All_8_...
3. 0 Cy74_CD45_C10_S418_c...	37. 0 cy94_cd45pos_D10_S14...	71. 1 cy88_cd_45_pos_3_H12...
4. 0 cy79-p1-CD45-pos-PD1...	38. 0 cy94_cd45pos_H01_S18...	72. 1 cy88_cd_45_pos_H12_S...
5. 0 cy80-CD45-neg-A10-S3...	39. 0 cy94_cd45pos_H07_S18...	73. 1 CY88CD45POS_2_H12_S4...
6. 0 cy80-CD45-neg-B05-S4...	40. 0 CY94CD45POS_1_B12_S1...	74. 1 CY94_CD45NEG_CD90POS...
7. 0 cy80-CD45-pos-PD1-po...	41. 0 CY94CD45POS_1_C01_S1...	75. 1 CY94_CD45NEG_CD90POS...
8. 0 cy80-Cd45-pos-PD1-po...	42. 0 CY94CD45POS_1_C03_S1...	76. 1 CY94_CD45NEG_CD90POS...
9. 0 cy80-Cd45-pos-PD1-po...	43. 0 CY94CD45POS_1_D02_S1...	77. 1 CY94_CD45NEG_CD90POS...
10. 0 cy80-CD45-pos-PD1-po...	44. 0 CY94CD45POS_1_D06_S1...	78. 1 cy94_cd45neg_cd90pos...
11. 0 CY94_CD45NEG_CD90POS...	45. 0 CY94CD45POS_1_D08_S1...	79. 1 cy94_cd45neg_cd90pos...
12. 0 CY94_CD45NEG_CD90POS...	46. 0 CY94CD45POS_1_E06_S1...	80. 1 cy94_cd45neg_cd90pos...
13. 0 CY94_CD45NEG_CD90POS...	47. 0 CY94CD45POS_1_F04_S1...	81. 1 cy94_cd45neg_cd90pos...
14. 0 CY94_CD45NEG_CD90POS...	48. 0 CY94CD45POS_1_G02_S1...	82. 1 cy94_cd45neg_cd90pos...
15. 0 CY94_CD45NEG_CD90POS...	49. 0 CY94CD45POS_1_G05_S1...	83. 1 cy94_cd45neg_cd90pos...
16. 0 CY94_CD45NEG_CD90POS...	50. 0 CY94CD45POS_1_G07_S1...	84. 1 cy94_cd45pos_D04_S13...
17. 0 cy94_cd45neg_cd90pos...	51. 0 CY94CD45POS_1_H06_S1...	85. 2 cy53-1-CD45-pos-1-E0...
18. 0 cy94_cd45neg_cd90pos...	52. 0 CY94CD45POS_1_H09_S1...	86. 2 cy53-1-CD45-pos-2-A1...
19. 0 cy94_cd45neg_cd90pos...	53. 1 cy53-1-CD45-pos-1-H1...	87. 2 cy53-1-CD45-pos-2-D0...
20. 0 cy94_cd45neg_cd90pos...	54. 1 cy53-1-CD45-pos-2-H1...	88. 2 cy53-1-CD45-pos-2-E0...
21. 0 cy94_cd45pos_4_B08_S...	55. 1 CY58_1_CD45_H12_S105...	89. 2 cy53-1-CD45-pos-2-F0...
22. 0 cy94_cd45pos_4_C08_S...	56. 1 cy58-1-CD45-pos-H12-...	90. 2 CY58_1_CD45_B06_S978...
23. 0 cy94_cd45pos_4_E01_S...	57. 1 CY65_POS_B_AGGATGTG...	91. 2 cy58-1-CD45-pos-B10-...
24. 0 cy94_cd45pos_4_E04_S...	58. 1 Cy72_CD45_A01_S673_c...	92. 2 Cy72_CD45_A06_S678_c...
25. 0 cy94_cd45pos_4_E12_S...	59. 1 cy79-p1-CD45-pos-PD1...	93. 2 Cy72_CD45_H07_S763_c...
26. 0 cy94_cd45pos_4_G02_S...	60. 1 cy80-CD45-neg-B06-S4...	94. 2 cy88_cd_45_pos_G05_S...
27. 0 cy94_cd45pos_4_H06_S...	61. 1 cy80-CD45-neg-F12-S4...	95. 2 CY89A_CD45_POS_10_A0...
28. 0 cy94_cd45pos_A09_S10...	62. 1 cy80-CD45-neg-H12-S4...	96. 2 CY89A_CD45_POS_6_A08...
29. 0 cy94_cd45pos_B04_S11...	63. 1 cy80-Cd45-pos-Pd1-ne...	97. 2 CY89A_Core_15_B03_S1...
30. 0 cy94_cd45pos_C04_S12...	64. 1 cy80-CD45-pos-PD1-po...	98. 2 CY89FNA_D05_S233_com...
31. 0 cy94_cd45pos_C05_S12...	65. 1 cy80-Cd45-pos-PD1-po...	99. 2 cy94_cd45neg_cd90pos...
32. 0 cy94_cd45pos_C12_S13...	66. 1 CY84_PRIM_POS_All_6_...	100. 2 cy94_cd45pos_4_B06_S...
33. 0 cy94_cd45pos_D01_S13...	67. 1 CY84_PRIM_POS_All_7_...	101. 2 cy94_cd45pos_4_H01_S...
34. 0 cy94_cd45pos_D03_S13...	68. 1 CY84_PRIM_POS_All_7_...	102. 2 CY94CD45POS_1_B07_S1...

## 10 Appendix - Unused genes

The followings genes were not used because they could not be mapped to the internal gene symbols.

1. LOC653712	72. PARK2	143. C1orf86	214. HOXA10-HOXA9
2. GPR98	73. GPR124	144. ILF3-AS1	215. PMS2L2
3. BSN-AS2	74. ACPL2	145. HRSP12	216. SNORD81
4. LOC728040	75. LOC728724	146. KIAA1751	217. LOC645434
5. LOC100216546	76. LOC649133	147. MIR219-2	218. SPANXB2
6. PROSC	77. SERF2-C150RF63	148. PHOSPHO2-KLHL23	219. LOC100132077
7. FLJ26850	78. LOC285593	149. LOC154761	220. 7-Mar
8. KIAA1199	79. LOC285627	150. LOC653160	221. LOC100130992
9. EPT1	80. EFCAB4A	151. PCNA-AS1	222. C1orf110
10. TMEM180	81. CCDC129	152. NUDT4P1	223. HIAT1
11. C11orf93	82. LOC100500773	153. SNAR-A7	224. DEFB131
12. GLUD1P7	83. C11orf57	154. RTDR1	225. RQCD1
13. IPW	84. WIBG	155. LOC441155	226. GAGE2D
14. LOC338758	85. FLJ34503	156. FAM127C	227. RFPL1-AS1
15. LINC00597	86. FLJ41200	157. FAM109A	228. C5orf54
16. AGPHD1	87. 7-Sep	158. LOC257358	229. LOC100507373
17. DKFZP434I0714	88. KIAA1045	159. FP588	230. PET112
18. LOC100133091	89. FAM73B	160. C20orf24	231. C9orf117
19. C11orf73	90. LOC399715	161. LOC285484	232. LOC100287834
20. ERBB2IP	91. LOC100144597	162. ZFP106	233. C3orf27
21. RNU6-33	92. LOC727915	163. TCEB3CL	234. FAM25B
22. LOC729603	93. BET3L	164. LOC728323	235. C9orf114
23. FLJ42709	94. C15orf26	165. LOC646813	236. LOC732275
24. C19orf55	95. SNORD50A	166. LINC00260	237. C21orf15
25. FONG	96. LOC100270746	167. FDP5L2A	238. LOC643623
26. LOC654342	97. FAM134A	168. LOC100169752	239. LOC100506025
27. RNU6-34	98. FLJ13197	169. RNU6-83	240. LOC390660
28. FLJ45974	99. FAM22F	170. C14orf182	241. KIAA1737
29. LOC100132707	100. C4orf32	171. LOC339442	242. LOC100422737
30. FLJ39739	101. LOC392196	172. HPO7349	243. PAPD5
31. BAGE4	102. SKIV2L2	173. OR9G9	244. LOC646268
32. LINC00675	103. FKSG29	174. LOC100130894	245. AGAP8
33. PP14571	104. 2-Sep	175. C20orf201	246. LOC442132
34. LOC284344	105. LOC100289187	176. C9orf37	247. FAM105A
35. LOC100506172	106. OBFC1	177. TMEM66	248. LOC100505624
36. EMR1	107. C14orf79	178. MT1IP	249. LOC285768
37. LOC729177	108. LOC100128420	179. LEPRE1	250. LOC144742
38. LOC100527964	109. FAM134C	180. LOC150776	251. C17orf104
39. LOC100128252	110. LOC493754	181. LOC100507299	252. LOC644936
40. C1orf145	111. POU4F1-AS1	182. C21orf88	253. LPHN1
41. ECRP	112. C16orf11	183. PAR4	254. LOC100507433
42. LOC440311	113. LOC284837	184. LOC100506474	255. LOC441204
43. LOC400752	114. LOC285972	185. PPAP2C	256. LOC645638
44. LOC338799	115. KIAA1239	186. CTSL1P8	257. C14orf1
45. LOC100132735	116. C11orf92	187. C11orf34	258. SKP1P2
46. LOC653486	117. C21orf33	188. FLJ31813	259. FLJ42102
47. LOC392232	118. BRE	189. LINC00696	260. 6-Mar
48. LINC00577	119. TOMM70A	190. LOC100507140	261. C2orf71
49. LOC340073	120. LOC100507003	191. LOC646938	262. C15orf57
50. C15orf60	121. PAR-SN	192. UFD1L	263. LOC349160
51. LOC574538	122. MGC39372	193. FLJ25363	264. LOC100128338
52. LRRC16B	123. MGC27382	194. SLC22A20	265. FAM74A2
53. FLJ13224	124. HFE2	195. LOC415056	266. SNORA43
54. C7orf53	125. TMEM133	196. CCDC104	267. LOC100289473
55. LOC100505474	126. LOC731779	197. LOC100128568	268. LOC100130238
56. LOC100133161	127. LOC100128593	198. LYRM5	269. LOC100292680
57. LPPR4	128. LOC100507537	199. KIAA1524	270. C6orf195
58. LOC100129046	129. LOC387723	200. HDGFRP3	271. RAD51L3-RFFL
59. ZMYM6NB	130. LOC401109	201. LOC100132356	272. REXO1L1
60. RNU6-79	131. SNAR-A10	202. LOC100289495	273. LOC646498
61. LINC00516	132. DOPEY1	203. FLJ45513	274. STL
62. MS4A8B	133. LOC253039	204. LOC100505841	275. NPIP
63. LOC100130155	134. LOC283922	205. DDX26B	276. DSCR3
64. LOC284412	135. BREA2	206. LOC100499405	277. LOC90834
65. LOC729852	136. FLJ42875	207. LOC100506136	278. EMCN-IT3
66. KIAA0368	137. RABL5	208. LOC338963	279. C5orf48
67. LOC100289673	138. LOC100133957	209. XAGE1C	280. LOC100507244
68. LOC100128993	139. LOC100506054	210. LOC442459	281. FAM211B
69. C2orf53	140. LOC644961	211. LOC283174	282. RNU6-67
70. MGC34796	141. LOC100506190	212. LOC643201	283. RUNX1-IT1
71. FOLR4	142. LOC100507389	213. LOC400654	284. LOC152217
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			286. C19orf60
			287. LOC283070
			288. LOC730091
			289. FLJ46066

290. FAM115A	367. CNIH	444. LOC100287879	521. FAM27A
291. DYX1C1	368. LOC284933	445. ERO1LB	522. C19orf45
292. LOC339166	369. MNF1	446. LOC253573	523. TTC18
293. LOC100507651	370. EFHA2	447. LOC729609	524. MRE11A
294. C1orf213	371. 3-Sep	448. LOC100652999	525. LOC728819
295. PTPLAD2	372. DKFZP434K028	449. LOC100130872	526. LOC647323
296. LOC100130093	373. C5orf4	450. KGFLP1	527. LOC100271722
297. LOC441461	374. FAM22D	451. LOC100190940	528. LOC100288814
298. WDR52	375. METTL21D	452. C10orf129	529. C10orf76
299. TMEM2	376. FLJ40292	453. LOC100131635	530. GUCY1B3
300. LINC00238	377. LOC283038	454. LOC100272216	531. LOC440563
301. FLJ22184	378. LOC100131691	455. LOC145474	532. GPR133
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304. GPR111	381. LOC340508	458. PRAMEF3	535. LOC100132062
305. LOC441025	382. LOC729737	459. FLJ41278	536. MIR549
306. FAM58A	383. LOC388906	460. LPPR1	537. SGOL1
307. LOC100507472	384. NGFRAP1	461. PDIA3P	538. LOC440600
308. LOC644172	385. LOC643923	462. C10orf32-AS3MT	539. GAGE4
309. FTSJ2	386. LOC100498859	463. C13orf35	540. C11orf85
310. PYCRL	387. SNAR-A1	464. LOC100131096	541. TMEM57
311. LOC283332	388. LOC340017	465. ZCCHC11	542. GLT25D1
312. LOC100652768	389. LOC440288	466. LOC440970	543. C8orf42
313. LOC100507564	390. LOC440900	467. C16orf80	544. AA06
314. CAR KD	391. EPB49	468. SMCR9	545. LOC100506548
315. SMEK2	392. LOC284788	469. LOC100302640	546. LOC286190
316. C1orf172	393. C7orf49	470. LOC100507584	547. C10orf35
317. SCXA	394. GTPBP5	471. ATP5L2	548. LOC100129794
318. LUST	395. LOC100129550	472. LOC283585	549. TMEM55B
319. C10orf11	396. ZNF664-FAM101A	473. LOC648987	550. MGC16025
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322. LOC284100	399. 3-Mar	476. LOC646903	553. KCNE1L
323. PTPLA	400. C12orf39	477. LOC100288255	554. LOC643037
324. ZCCHC16	401. LOC100130849	478. AGSK1	555. C3orf43
325. NCRNA00185	402. NARFL	479. LOC100130673	556. LOC100133123
326. LOC440518	403. INMT-FAM188B	480. GCN1L1	557. C16orf52
327. MESDC2	404. C20orf166-AS1	481. LOC286359	558. ANKRD20A12P
328. LOC727896	405. FLJ42393	482. LOC440297	559. LDOC1L
329. LOC100506343	406. LINC00341	483. LEPREL1	560. FAM92A1
330. 1-Dec	407. KIAA1984-AS1	484. LINC00035	561. ALS2CR11
331. DKFZP434A062	408. FLVCR1-AS1	485. FAM101B	562. C4orf40
332. FLJ35024	409. LOC389023	486. PPIAL4B	563. C18orf56
333. LOC100130348	410. C6orf57	487. LOC100505812	564. LOC100128531
334. LOC100499484-C9ORF174	411. LOC100272228	488. LOC200772	565. LOC100505695
335. C10orf12	412. LOC389895	489. LOC283731	566. LOC100131551
336. CCDC64	413. C9orf156	490. LOC339975	567. C11orf30
337. TMEM14E	414. AGPAT6	491. FAM212A	568. EFCAB4B
338. LOC641515	415. LOC100133331	492. AGPAT9	569. FAM60A
339. CCDC11	416. LOC100129520	493. FLJ30403	570. LOC340357
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341. LOC100506388	418. LOC100507351	495. LOC100129534	572. LINC00202-1
342. FAM63B	419. CSTF3-AS1	496. FAM5C	573. LOC285548
343. AKR1CL1	420. C6orf211	497. C19orf40	574. LOC100131564
344. KIAA2018	421. LINC00704	498. LOC100133612	575. RNY5
345. LOC554223	422. ZCCHC6	499. LOC202781	576. FLJ33630
346. LOC340515	423. FLJ30679	500. LOC100507391	577. C7orf29
347. LOC100505738	424. LOC100130231	501. LOC100499227	578. LOC650368
348. LOC645249	425. LOC100133050	502. FAM46B	579. SNORD77
349. SNORD31	426. RNU86	503. LINC00086	580. LOC151484
350. ASAP1-IT1	427. FAM24B-CUZD1	504. LOC100126784	581. CSN1S2BP
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352. LOC100288069	429. HN1L	506. KIAA1430	583. GLTSCR1
353. CTSL2	430. C10orf128	507. TSSC1	584. GATM-AS1
354. C4orf52	431. C8orf46	508. LOC100240734	585. GPR115
355. WBSR22	432. ZNF271	509. FAM150B	586. PPAPDC1A
356. ASUN	433. C19orf52	510. LOC158696	587. LOC100505964
357. C1orf168	434. PTPN20A	511. LOC91450	588. C22orf29
358. LOC503519	435. C9orf172	512. HTT-AS1	589. LOC255025
359. C2orf57	436. TCEB1	513. LOC150197	590. LOC100128164
360. ADCK4	437. ITFG3	514. PPAP2A	591. C2orf62
361. PHF16	438. C10orf137	515. LOC155060	592. LOC401127
362. ERO1L	439. LINC00483	516. FAM183B	593. C4orf21
363. BAGE	440. FAM154A	517. ATP5B	594. LOC283143
364. PPP1R2P3	441. LINC00657	518. CPSF3L	595. LOC100144604
365. LOC100132146	442. C1orf65	519. CCDC108	596. LOC100130700
366. LOC730159	443. FAM175B	520. PNMAL2	597. LINC00617
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			599. GNB2L1
			600. LOC100996291
			601. TMEM35
			602. C19orf77

603. FLJ35282	680. KIAA0020	757. LOC101055625	834. C7orf76
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605. KIAA1456	682. LOC100506241	759. LOC728752	836. GPR64
606. GBAS	683. LOC283299	760. LOC100506421	837. LOH12CR1
607. SNORD80	684. LOC152225	761. MKL2	838. LOC100996455
608. KLRAP1	685. LOC642852	762. RNU6-53	839. AQPEP
609. LOC100506050	686. DSCR6	763. LOC400084	840. GPR112
610. FAM26E	687. LOC728558	764. LOC100506082	841. LOC285629
611. PPY2	688. C4orf29	765. ZNRD1-AS1	842. LOC100133985
612. ATP1A10S	689. SLM01	766. KIAA1731	843. FLJ39639
613. PPYR1	690. LOC256880	767. DGCR14	844. LINC00669
614. LOC400027	691. FLJ38576	768. CIRH1A	845. GATS
615. WDR67	692. C21orf59	769. PRAC	846. DPCR1
616. ZFP112	693. TENC1	770. NT5C3	847. WDR85
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621. LINC00152	698. C6orf1	775. DAK	852. MLL4
622. SNAR-B2	699. MIR1270-1	776. LOC100653515	853. LINS
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625. MIR3607	702. LOC399744	779. LOC286367	856. LOC388152
626. LOC100133669	703. PLK1S1	780. C19orf69	857. LOC387895
627. LOC100631378	704. IL8	781. MYCL1	858. LOC402779
628. LOC100132111	705. EMR2	782. LOC643406	859. LOC90499
629. LOC284080	706. DOPEY2	783. LOC100144602	860. ENTHD2
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632. LOC100134259	709. LOC157381	786. KIAA1462	863. LOC339505
633. FRG1B	710. LOC400680	787. LOC100287072	864. RPL19P12
634. SNAR-A3	711. LOC100131234	788. CSDAP1	865. LOC440434
635. NAPRT1	712. CSRP2BP	789. LOC152578	866. ZNF818P
636. LOC375295	713. LOC652276	790. LOC100130370	867. C18orf62
637. C7orf34	714. LOC100506207	791. LPPR5	868. WBSR17
638. FAM65C	715. LOC220729	792. C3orf55	869. LOC100505875
639. MKI67IP	716. C1orf180	793. GAREML	870. SYT14L
640. LOC284294	717. LOC100133286	794. LOC149086	871. LOC729966
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642. FLJ45079	719. C6orf170	796. PSIMCT-1	873. LOC730102
643. LOC348761	720. LOC728024	797. FLJ43663	874. 1-Mar
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645. LINC00264	722. LOC154092	799. GPR123	876. LOC286083
646. PVRL3	723. LOC158376	800. C17orf103	877. LOC100130451
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648. MGEA5	725. LOC284395	802. C17orf70	879. MIR511-1
649. LINC00633	726. LOC100287225	803. MGC45922	880. HDHD1
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651. APITD1	728. LINC00094	805. LOC284276	882. NBLA00301
652. LOC100128714	729. LOC643802	806. LOC100288122	883. LOC100505619
653. MIR1270-2	730. FLJ46361	807. DKFZp68601327	884. LOC100506422
654. UTP11L	731. LOC100506585	808. KIAA1279	885. LOC100129722
655. SDCCAG3	732. DUS2L	809. LOC646278	886. LOC729176
656. WAPAL	733. LOC100506804	810. LOC642236	887. LOC400043
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658. ZNF645	735. LOC100287314	812. C18orf8	889. BCM01
659. LOC643339	736. LOC100507577	813. KIAA2022	890. LOC728342
660. C12orf69	737. ATP5A1	814. WASH1	891. LOC643723
661. SPANXE	738. ATP5J2	815. RFWD2	892. LOC654433
662. LOC728537	739. TRIM49D1P	816. FAM5B	893. LOC100289561
663. FAM134B	740. LOC146880	817. 10-Sep	894. TCEB3C
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665. LOC389332	742. PPP1R2P9	819. C1orf227	896. C16orf55
666. LOC285878	743. HMHA1	820. LOC286437	897. CCDC111
667. C4orf22	744. GPR97	821. ACRC	898. FLJ11235
668. LOC93622	745. ZNF790-AS1	822. C8orf4	899. MTVR2
669. FLJ40288	746. CXorf31	823. PCDHB17	900. LOC100287792
670. LOC255130	747. WHAMMP1	824. MT1P2	901. GAGE12I
671. LOC145783	748. LOC90246	825. C12orf61	902. GLTSCR1L
672. LOC93432	749. C12orf5	826. C9orf171	903. LOC100131047
673. KIAA1033	750. FLJ44313	827. LOC100272217	904. LOC643770
674. FLJ36000	751. SNAR-A4	828. LAMB2P1	905. SPANXF1
675. AOC4	752. LOC388813	829. LOC100134868	906. C20orf26
676. KIAA1609	753. LOC100507091	830. LOC283692	907. PEG3-AS1
677. LOC100132078	754. SNORA34	831. LOC284260	908. LOC147646
678. LOC285740	755. LINC00087	832. 5-Mar	909. FAM188B
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			912. QTRTD1
			913. GNN
			914. PAR5
			915. FAM194A

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917. HSD52	994. HIATL2	1071. MTL5	1148. C12orf68
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919. LOC728730	996. SOLH	1073. LOC339524	1150. LOC100289230
920. RLTPR	997. FTSJD1	1074. PLAC1L	1151. LOC729444
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922. C8orf56	999. FLJ39051	1076. LOC150185	1153. LOC727924
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925. LOC100506368	1002. FLJ33360	1079. 6-Sep	1156. LOC284009
926. EEF1E1-MUTED	1003. LOC100506810	1080. SNAR-C2	1157. ATP5E2
927. 1-Sep	1004. LOC100129083	1081. LOC100131289	1158. FAM26F
928. C1orf192	1005. C7orf41	1082. PVRL4	1159. LOC100505478
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930. SNORA39	1007. SMCR7	1084. LOC100505718	1161. LOC100505933
931. TMEM48	1008. USMG5	1085. RNU6-57	1162. SNORA3
932. C10orf68	1009. RNU6-6	1086. LOC100289019	1163. LOC400657
933. ATP5E	1010. TMEM5	1087. LINC00277	1164. LOC730227
934. PCNXL2	1011. MIR511-2	1088. MIR219-1	1165. B3GALTL
935. AZI1	1012. LOC100288432	1089. LOC100288181	1166. FAM179A
936. C4orf26	1013. LOC400958	1090. LOC550643	1167. SNAR-H
937. LOC339862	1014. MTERFD1	1091. LOC401242	1168. C1orf95
938. LOC100268168	1015. LOC401164	1092. C22orf28	1169. LOC100505545
939. LOC100131138	1016. PRSS3P2	1093. LOC100294145	1170. SNORD114-8
940. HYALP1	1017. LECT1	1094. C5orf45	1171. BAGE5
941. ZAK	1018. LOC100130776	1095. FAM178A	1172. CCDC19
942. LOC441601	1019. LOC100129935	1096. 14-Sep	1173. LOC284648
943. LOC401557	1020. LOC100129518	1097. LOC149950	1174. FAM103A1
944. ZNF788	1021. LOC284661	1098. C20orf195	1175. SMCR7L
945. TISP43	1022. WDR52-AS1	1099. LOC100133267	1176. FAM195B
946. FAM45B	1023. LOC100192426	1100. LOC285547	1177. PHF17
947. LOC100133461	1024. LOC729987	1101. LOC284454	1178. LOC144486
948. MGC16275	1025. LOC642929	1102. BAI3	1179. FAM101A
949. ZNF205-AS1	1026. SCARNA9L	1103. LOC100127888	1180. LOC100287177
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956. ZCCHC5	1033. PRMT10	1110. LOC339666	1187. LOC100128822
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958. LOC283914	1035. LOC100288974	1112. LOC100506071	1189. FAM46A
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961. LOC649330	1038. ATP5J	1115. LOC100289509	1192. EPN2-IT1
962. LEPREL2	1039. KIAA1967	1116. LGALS17A	1193. LOC100862671
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964. FIGF	1041. LOC388692	1118. LOC100130581	1195. KIAA1467
965. CXXC11	1042. LOC100132247	1119. ZNF812	1196. LOC644838
966. METTL20	1043. LOC729683	1120. PPAPDC3	1197. LOC283440
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968. KGFLP2	1045. C21orf7	1122. LOC100507117	1199. LOC90784
969. FLJ42627	1046. C7orf55	1123. LOC100130899	1200. C6orf165
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971. MRS2P2	1048. C22orf32	1125. LOC644669	1202. LOC400794
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973. CYP2D7P1	1050. HGC6.3	1127. NUPR1L	1204. CCDC135
974. CYP2B7P1	1051. LOC101101776	1128. C1orf51	1205. ABP1
975. CSDA	1052. LOC100506195	1129. LRRC3-AS1	1206. FLJ46257
976. LOC349196	1053. LOC282997	1130. LOC338817	1207. GOLGA8I
977. FLJ46284	1054. LOC283867	1131. CCDC109B	1208. LOC388242
978. C10orf40	1055. C9orf53	1132. LOC158435	1209. GTF2H2D
979. FAM154B	1056. SELV	1133. LOC100499484	1210. LOC100270679
980. SNORD76	1057. SELM	1134. LARGE	1211. LOC286442
981. LOC150381	1058. LOC730811	1135. LOC728606	1212. SNORA80
982. SETD8	1059. SEPW1	1136. LOC341056	1213. LOC646736
983. MGC21881	1060. FAM205B	1137. FLJ37505	1214. LOC286114
984. RPS17L	1061. LOC257396	1138. FRMPD2P1	1215. SCARNA27
985. KIAA1656	1062. ELTD1	1139. LOC389791	1216. SNAR-A2
986. WDR96	1063. C21orf90	1140. LOC100144603	1217. RSN1L-AS1
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988. ADC	1065. LOC388948	1142. ALPPL2	1219. LOC100129345
989. MLL3	1066. C11orf84	1143. ZFYVE20	1220. LOC284798
990. C21orf49	1067. LOC100289341	1144. BLOC1S1-RDH5	1221. LSAMP-AS3
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			1227. LOC100506134
			1228. LOC644145

1229. LOC101054525	1306. MFI2	1383. ATPBD4	1460. C1orf140
1230. PVRL3-AS1	1307. LOC100505806	1384. RNU6-69	1461. LOC339874
1231. REREP3	1308. LOC100505776	1385. BMS1P5	1462. IRG1
1232. ZNF487P	1309. PPAPDC1B	1386. KCNMB2-IT1	1463. LOC494141
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1237. SPTY2D1-AS1	1314. CHDC2	1391. LOC339894	1468. IGJ
1238. LOC645513	1315. LOC148696	1392. WBSCR16	1469. LOC100499194
1239. LOC100288079	1316. LOC648691	1393. MLLT4	1470. C21orf54
1240. CTSL1P2	1317. C20orf112	1394. C1orf200	1471. LOC100505912
1241. SNORA42	1318. MINOS1P1	1395. C19orf80	1472. 4-Sep
1242. MTERF	1319. XAGE1E	1396. NARR	1473. LOC339822
1243. LOC401397	1320. SNORA45	1397. LOC100507173	1474. LOC283194
1244. LOC100288524	1321. FLJ12334	1398. FAM115C	1475. FAM86A
1245. ATP5G2	1322. DKFZp686D0853	1399. LOC646719	1476. LOC643669
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1247. LOC100996307	1324. C17orf74	1401. LOC727849	1478. KIAA0247
1248. LOC401324	1325. LOC149134	1402. RAB7L1	1479. C8orf47
1249. CRHR1-IT1	1326. FAM203A	1403. TTLL13	1480. LOC391322
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1252. NS3BP	1329. PAK7	1406. SNAR-D	1483. SLC24A6
1253. LOC100507463	1330. KC6	1407. LOC374443	1484. FAM65B
1254. LOC100132741	1331. LOC100507156	1408. FLJ42351	1485. LOC401074
1255. LOC96610	1332. LOC440905	1409. LOC646999	1486. SPG200S
1256. GRAMD2	1333. LOC653786	1410. LOC401497	1487. LOC100505633
1257. LOC649395	1334. SNAR-A5	1411. ERICH1-AS1	1488. C16orf13
1258. CCDC41	1335. PAPD7	1412. RNU6-52	1489. PION
1259. C6orf70	1336. LOC100506795	1413. PP7080	1490. LOC728084
1260. LOC401463	1337. FAM150A	1414. LOC541471	1491. LOC100507032
1261. LOC100506023	1338. LOC100506321	1415. LOC728377	1492. APITD1-CORT
1262. LOC286238	1339. C1orf177	1416. LOC646329	1493. LOC100216545
1263. LOC100128682	1340. KIAA1377	1417. LOC100131060	1494. LOC100873065
1264. C2orf44	1341. VIMP	1418. NDNL2	1495. C8orf40
1265. FLJ33534	1342. USP17L1P	1419. LOC100506599	1496. LOC100144595
1266. C20orf118	1343. NPIPL3	1420. FAM194B	1497. PAPL
1267. GAGE2B	1344. LOC100505622	1421. LOC100129361	1498. SHFM1
1268. FLJ14186	1345. LOC653653	1422. LOC388849	1499. LOC643837
1269. LOC645355	1346. SEPT7L	1423. LOC400558	1500. LOC100507053
1270. FAM46D	1347. CRAMP1L	1424. CCRN4L	1501. LOC100505658
1271. LOC286177	1348. LOC339803	1425. LOC100128787	1502. LOC283693
1272. LOC100129617	1349. LOC100287944	1426. MAFG-AS1	1503. LOC100131089
1273. SUV420H1	1350. LOC154449	1427. LOC285441	1504. LINC00202-2
1274. LOC100505666	1351. EMR3	1428. LOC100286922	1505. LOC344967
1275. LOC401052	1352. C11orf48	1429. LOC286135	1506. LOC283403
1276. DOM3Z	1353. C9orf69	1430. LOC440461	1507. SNAR-A14
1277. LOC100129858	1354. LOC283177	1431. KIAA0196	1508. LOC339535
1278. FAM175A	1355. C20orf166	1432. FAM188A	1509. CECR6
1279. C16orf62	1356. NEURL	1433. LOC100506122	1510. SNAR-A12
1280. C7orf60	1357. LOC645752	1434. LOC100130417	1511. LOC84931
1281. CXCR7	1358. LOC439994	1435. METTL10	1512. UBE2Q2P3
1282. ATPBD4-AS1	1359. LINC00176	1436. GPR126	1513. CRSP8P
1283. DKFZp566F0947	1360. MIR4482-1	1437. LOC100506451	1514. LOC100507387
1284. LOC100506083	1361. FAM27L	1438. LOC100287632	1515. NIM1
1285. NCRUPAR	1362. LOC100129726	1439. LOC283335	1516. LOC400891
1286. CXorf23	1363. STRA13	1440. LOC100507547	1517. SMA4
1287. WDR65	1364. LOC100507194	1441. BRE-AS1	1518. LOC400685
1288. LOC100505761	1365. LOC285074	1442. C14orf80	1519. LOC284757
1289. WDR16	1366. KIRREL	1443. LOC113230	1520. MRPL42P5
1290. LOC285540	1367. LOC145837	1444. PTCHD2	1521. SNORD74
1291. LOC100130744	1368. LINC00312	1445. 9-Sep	1522. TRAPPC2P1
1292. LOC100130987	1369. LOC286186	1446. LOC100303749	1523. LOC284865
1293. LOC100288748	1370. C9orf123	1447. TCEB3	1524. LOC100287846
1294. SNAR-B1	1371. LOC401980	1448. C8orf22	1525. LOC221122
1295. SLM02	1372. C1orf170	1449. LOC100289650	1526. SEPN1
1296. LOC728175	1373. 11-Sep	1450. CCBL2	1527. LOC100188947
1297. LOC100128750	1374. LOC100505676	1451. C14orf166	1528. LOC440910
1298. LOC100506472	1375. LOC100288637	1452. FAM226A	1529. LOC100289137
1299. SNAR-C5	1376. LOC100132273	1453. LOC100129027	1530. PRHOXNB
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1302. LOC100130476	1379. LOC400548	1456. LACE1	1533. LOC730101
1303. NADKD1	1380. MGC16142	1457. C16orf88	1534. FAM64A
1304. HN1	1381. SNORD79	1458. DFNB31	1535. FAM21C
1305. FAM96A	1382. GAGE8	1459. LOC100129427	1536. C19orf59
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			1538. PER4
			1539. LINC00568
			1540. LOC440028
			1541. PCNXL3



1542. FLJ34208	1619. SNORD103A	1696. TUSC5	1773. C7orf13
1543. SNAR-C4	1620. C1orf173	1697. C20orf111	1774. LOC441454
1544. FAM96B	1621. LINC00441	1698. 10-Mar	1775. LINC00521
1545. MGC45800	1622. RNU6-28	1699. LOC730183	1776. C7orf45
1546. KIAA1715	1623. LOC339568	1700. 5-Sep	1777. LOC344887
1547. FLJ16171	1624. PRAMEF16	1701. LOC399815	1778. LOC100506393
1548. MLLT4-AS1	1625. TSG1	1702. ATP5I	1779. C9orf142
1549. LOC440704	1626. FLJ37453	1703. LOC283663	1780. 2-Mar
1550. CTAGE15P	1627. RSG1	1704. LOC158434	1781. XAGE2B
1551. DKFZp779M0652	1628. C19orf26	1705. LOC100506013	1782. FAM108C1
1552. LOC1720	1629. FLJ16779	1706. SNORD59B	1783. LOC645166
1553. GPR89C	1630. LOC100505978	1707. LOC729739	1784. FLJ39080
1554. PRSS46	1631. LOC100507424	1708. LINC00515	1785. LOC201651
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1556. FKBP1A-SDCBP2	1633. METTL21B	1710. SNAR-I	1787. LOC100271832
1557. LOC100129175	1634. GPR144	1711. C6orf164	1788. SEPP1
1558. ANXA8L2	1635. FAM132A	1712. LOC100129250	1789. C17orf96
1559. XRCC6BP1	1636. C2orf43	1713. LOC285819	1790. LOC100506730
1560. LOC440243	1637. LOC729013	1714. LOC158572	1791. C9orf174
1561. SLMQ2-ATP5E	1638. LOC92249	1715. ACPT	1792. CENPVP2
1562. FLJ20518	1639. SKINTL	1716. AIM1L	1793. LOC100130539
1563. C15orf59	1640. LOC100652909	1717. LOC100506746	1794. LOC643529
1564. AURKAPS1	1641. FLJ26245	1718. LOC440040	1795. C15orf55
1565. LOC100505679	1642. KAL1	1719. RGAG4	1796. LOC100506274
1566. C10orf107	1643. GPR113	1720. C14orf169	1797. FLJ37035
1567. LOC285889	1644. C10orf118	1721. SSX9	1798. LOC729020
1568. LOC100131496	1645. SNAR-A8	1722. DUX2	1799. KIAA0195
1569. LOC254099	1646. LOC100288123	1723. LOC340094	1800. LOC284385
1570. FAIM3	1647. C3orf45	1724. ATP5J2-PTCD1	1801. LOC285084
1571. LOC100129055	1648. LOC100130301	1725. LOC100129316	1802. FLJ45445
1572. LOC399753	1649. GM140	1726. ATHL1	1803. DKFZp434L192
1573. M1	1650. LOC100132354	1727. C14orf105	1804. LOC100507600
1574. SNAR-G1	1651. LOC100379224	1728. FLJ21408	1805. LOC100131094
1575. LOC402160	1652. C5orf55	1729. TMEM257	1806. C18orf42
1576. LOC339807	1653. LOC100507377	1730. LOC338651	1807. MRP63
1577. CCDC132	1654. MIR4520A	1731. RNU6-35	1808. LOC100505989
1578. LOC100129480	1655. PIR-FIGF	1732. C2orf82	1809. LOC100128881
1579. LOC285501	1656. KIAA1984	1733. KIAA1407	1810. PPAPDC2
1580. LOC100216479	1657. LOC100093698	1734. TRIM49D2P	1811. LOC100134229
1581. LOC100507066	1658. C4orf6	1735. LOC100288778	1812. LOC100131067
1582. AGXT2L1	1659. PIDD	1736. LOC100130855	1813. BAI2
1583. FLJ14107	1660. CT64	1737. H2BFXP	1814. SPDYE2L
1584. LOC254896	1661. C7orf73	1738. WTH3DI	1815. MST4
1585. RNU6-76	1662. MGC2752	1739. DKFZP434L187	1816. GDEP
1586. LOC644649	1663. SRPR	1740. LOC115110	1817. NHEG1
1587. ZNF767	1664. DCDC5	1741. NAT6	1818. LOC154872
1588. CCDC176	1665. LOC285696	1742. LOC283761	1819. FAM196A
1589. LOC653501	1666. MLL2	1743. PRUNE	1820. LOC100505782
1590. PAPP4	1667. C12orf70	1744. SNORD75	1821. LOC100652739
1591. LOC650226	1668. SF3B14	1745. HCG26	1822. EMR4P
1592. FAM127A	1669. LOC100506688	1746. LOC100506844	1823. MGC15885
1593. TMPRSS4-AS1	1670. FKBP9L	1747. LOC494127	1824. FLJ27352
1594. UQCC	1671. C9orf169	1748. JHDM1D	1825. RNMTL1
1595. CCDC23	1672. C1orf228	1749. KLHL7-AS1	1826. TARP
1596. LOC729080	1673. C2orf47	1750. CYBASC3	1827. APOA1BP
1597. ALMS1P	1674. APOBEC3A_B	1751. LOC100506035	1828. SC5DL
1598. LOC389033	1675. LOC100131434	1752. MLK7-AS1	1829. LOC494558
1599. LOC255167	1676. RP1-177G6.2	1753. C14orf159	1830. LPPR3
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1602. ZNF663	1679. LPHN2	1756. LOC400927	1833. LOC283587
1603. MIR203	1680. ZUFSP	1757. DIEXF	1834. LRRC16A
1604. LOC100294362	1681. LOC100505876	1758. LOC100130000	1835. MKL1
1605. PAR1	1682. LOC441009	1759. LOC441666	1836. C17orf61-PLSCR3
1606. LINC00478	1683. C10orf32	1760. LOC100506403	1837. LOC100128554
1607. FBX022-AS1	1684. LOC339788	1761. SETD5-AS1	1838. C1orf186
1608. LOC440894	1685. LOC100505918	1762. FLJ30838	1839. PNMA6D
1609. SNAR-C1	1686. DEFB130	1763. MB21D1	1840. LOC100505768
1610. FLJ45340	1687. LOC286059	1764. LOC100130480	1841. ANP32A-IT1
1611. LOC728431	1688. LOC550113	1765. 9-Mar	1842. LOC100505795
1612. LOC100507118	1689. PVRL1	1766. LOC642423	1843. C15orf37
1613. LOC100130075	1690. GSTTP1	1767. LOC401321	1844. LOC285033
1614. LOC100652770	1691. LEPREL4	1768. C3orf37	1845. LOC143666
1615. RCAN3AS	1692. FLJ12825	1769. TMEM194B	1846. C21orf67
1616. LOC731424	1693. LOC100507334	1770. LOC100630918	1847. SNORA17
1617. DKFZP686I15217	1694. AKD1	1771. PROL1	1848. LOC100132832
1618. MFSD7	1695. LOC100505495	1772. LOC728739	1849. C5orf42
			1850. PP12613
			1851. C15orf27
			1852. NARG2
			1853. LOC541473
			1854. LOC554206

1855. C9orf91	1932. LOC150568	2009. C22orf43	2086. FLJ44635
1856. FLJ40194	1933. GPR110	2010. LOC389634	2087. LOC100507254
1857. C1orf85	1934. LOC344595	2011. LOC728875	2088. LOC284023
1858. ATP5F1	1935. LOC441455	2012. LOC100507410	2089. DARC
1859. LOC440117	1936. CCDC64B	2013. GAGE2C	2090. FLJ22447
1860. LOC254128	1937. LOC644656	2014. LINC00854	2091. SPRNP1
1861. MGC2889	1938. LOC400456	2015. NBPF24	2092. PNMA6C
1862. MLF1IP	1939. LOC63930	2016. EFTUD1P1	2093. LOC146513
1863. CT60	1940. KIAA1429	2017. C1orf106	2094. C1orf233
1864. SNAR-A6	1941. LOC388796	2018. FAM65A	2095. MIR2964A
1865. FLJ16341	1942. CCDC94	2019. LOC100133920	2096. LOC100506713
1866. CTAGE5	1943. LOC100499489	2020. C17orf76-AS1	2097. C11orf82
1867. PRH1-PRR4	1944. ADRBK1	2021. C14orf23	2098. LOC100506497
1868. LOC152742	1945. PCDP1	2022. PRR24	2099. LOC730441
1869. LOC100129917	1946. GMCL1P1	2023. PTPLAD1	2100. LOC643542
1870. GJA9-MYCBP	1947. RNU6-71	2024. LOC650293	2101. SELK
1871. FAM73A	1948. LOC100128076	2025. LOC643355	2102. LOC100132287
1872. WHSC1	1949. LOC646743	2026. LOC157273	2103. FLJ22763
1873. LOC729970	1950. MESDC1	2027. LINC00085	2104. LOC644248
1874. LOC283688	1951. SMIM16	2028. TXLNG2P	2105. ZNF542
1875. LRRC33	1952. LOC100287036	2029. MIR664	2106. LOC100288846
1876. C19orf43	1953. LOC729121	2030. C5orf28	2107. FCGR1C
1877. WHSC1L1	1954. LINC00684	2031. MURC	2108. ATP5L
1878. AGAP7	1955. ATP5G3	2032. LOC339622	2109. LOC100128675
1879. RNU6-78	1956. C14orf37	2033. DFNB59	2110. WBP5
1880. FAM159A	1957. CGB	2034. LOC286297	2111. KIAA0907
1881. PTRF	1958. LOC284581	2035. C1orf63	2112. LOC100288570
1882. LOC100506469	1959. BAGE3	2036. C17orf59	2113. FLJ10038
1883. UPK3BL	1960. LOC643714	2037. LOC100129636	2114. FOXD4L2
1884. LOC202181	1961. LOC100130298	2038. LOC644189	2115. LOC100129924
1885. LOC642426	1962. LOC100129034	2039. FAM105B	2116. TMEM8C
1886. LOC100507346	1963. LOC100507362	2040. LOC728407	2117. FLJ43879
1887. LOC100128176	1964. LOC100133445	2041. LOC100505659	2118. LOC100507217
1888. C17orf85	1965. CTBP1-AS1	2042. C9orf41	2119. PDDC1
1889. LRRC48	1966. LOC100130880	2043. MFI2-AS1	2120. CCDC53
1890. SPG20	1967. GSTTP2	2044. C12orf52	2121. DBC1
1891. LINC00162	1968. BMS1P6	2045. LOC388553	2122. LOC642361
1892. RNU6-81	1969. KIAA0922	2046. ST7-OT3	2123. LOC100507501
1893. C14orf166B	1970. LOC100335030	2047. LINC00338	2124. FAM109B
1894. FAM108A1	1971. FLJ25758	2048. LOC100506314	2125. CECR5-AS1
1895. FAM195A	1972. LOC100130015	2049. DKFZp434J0226	2126. LOC100506123
1896. LSMD1	1973. GPR56	2050. C1orf64	2127. SGOL1-AS1
1897. UG0898H09	1974. C16orf93	2051. MIR486	2128. FLJ46446
1898. C17orf72	1975. LOC100505783	2052. LOC646862	2129. LOC389906
1899. LOC100507489	1976. CEBPA-AS1	2053. PCNX	2130. LIMS3L
1900. KIAA0226L	1977. XGPY2	2054. D21S2088E	2131. LOC595101
1901. SMA5	1978. LOC153910	2055. LOC100506668	2132. WBSR27
1902. LOC440925	1979. LOC728613	2056. NOTCH2NL	2133. FLJ23867
1903. EP400NL	1980. LOC643486	2057. ZNF724P	2134. SELT
1904. 12-Sep	1981. LOC100009676	2058. MAGOH2	2135. EFTUD1
1905. NBPF16	1982. C5orf27	2059. GATSL3	2136. RGAG1
1906. LOC100507462	1983. C19orf35	2060. LOC388942	2137. LOC646471
1907. LOC286467	1984. SGK494	2061. AIM1	2138. C9orf96
1908. FAM22G	1985. LOC340074	2062. LOC100508120	2139. CCDC90A
1909. C2orf61	1986. LOC100130705	2063. FAM21B	2140. C9orf89
1910. LOC407835	1987. SNORA76	2064. IFLTD1	2141. MTERFD2
1911. LOC153684	1988. FLJ27354	2065. SNAR-A11	2142. LOC441081
1912. LOC285762	1989. MIR3545	2066. KDM5B-AS1	2143. TCEB2
1913. ATP5H	1990. C12orf36	2067. KIAA1244	2144. LOC100506963
1914. CECR5	1991. C3orf65	2068. MGC72080	2145. LOC100506229
1915. LOC100271836	1992. LOC100506874	2069. C3orf17	2146. GPR125
1916. MGC57346	1993. LOC731275	2070. HOXC-AS5	2147. LOC100507632
1917. LOC440700	1994. FLJ41649	2071. LOC100507205	2148. MEF2BNB
1918. LOC100505817	1995. FTSJD2	2072. UNQ6975	2149. FLJ31485
1919. LOC442028	1996. FAM46C	2073. SNAR-A13	2150. KIAA0430
1920. FLJ42969	1997. C16orf3	2074. LOC100128573	2151. LOC284998
1921. LOC653513	1998. LOC284950	2075. C11orf35	2152. LOC100505716
1922. VPRBP	1999. LOC100506305	2076. CD97	2153. LOC440300
1923. LOC100132891	2000. LOC400655	2077. LOC729732	2154. LOC100506710
1924. LOC100506990	2001. C14orf2	2078. SNORD44	2155. XAGE1D
1925. C17orf105	2002. LOC145820	2079. SMEK1	2156. LOC100506100
1926. CXorf64	2003. FAM127B	2080. LOC729041	2157. LOC116437
1927. LOC100129961	2004. N6AMT2	2081. LOC441242	2158. LOC100129213
1928. BZRAP1-AS1	2005. KIAA1432	2082. LOC340113	2159. LOC401010
1929. FAS-AS1	2006. GAGE6	2083. C10orf10	2160. C10orf54
1930. FAM211A	2007. NRD1	2084. SCXB	2161. LOC284751
1931. LOC392364	2008. LOC440173	2085. SEPT5-GP1BB	2162. LOC100131626
			2163. LOC100287704
			2164. LOC646626
			2165. FLJ43681
			2166. LOC100506384
			2167. CXorf22

2168. LOC100505835	2247. TTC40	2326. SQRDL	2405. SNORD119
2169. C13orf45	2248. CECR1	2327. MIR644B	2406. T
2170. LOC285758	2249. PPP2R4	2328. KIAA0141	2407. LOC284632
2171. AHS2	2250. LOC100271702	2329. FLJ20021	2408. RNU6-19
2172. SNORD103B	2251. LOC643401	2330. CCBP2	2409. LOC100128361
2173. FAM91A2	2252. HEATR8-TTC4	2331. FAM22A	2410. LOC100288346
2174. LOC100652791	2253. YAE1D1	2332. KIAA1683	2411. LOC284578
2175. LOC100130331	2254. CCDC163P	2333. LOC100133315	2412. AATK-AS1
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2177. LINC00693	2256. LOC729059	2335. LOC728392	2414. PTGER4P2-CDK2AP2P2
2178. PTPN20B	2257. PCNXL4	2336. LOC727677	2415. LOC728012
2179. LOC643733	2258. LOC100128054	2337. IP011-LRRC70	2416. PNMAL1
2180. KIAA1919	2259. KIAA1644	2338. LOC100130264	2417. DEFB109P1
2181. C22orf26	2260. CT49	2339. C15orf43	2418. MIR3676
2182. TOP1P2	2261. CXorf28	2340. LOC100131726	2419. 2-Mar
2183. LOC100505687	2262. C10orf2	2341. LOC339529	2420. SNAR-C3
2184. CXorf61	2263. LOC440335	2342. FAM26D	2421. MFSD4
2185. GSG2	2264. SPATA31A4	2343. C9orf9	2422. LOC100505715
2186. GOLGA6L5	2265. TCEB3CL2	2344. LOC200726	2423. LOC100506714
2187. RNU6-16	2266. LOC146481	2345. LOC151174	2424. C5orf20
2188. GLTSCR2	2267. LOC728743	2346. LOC284688	2425. LOC100190986
2189. GPR114	2268. CCDC74B-AS1	2347. 8-Mar	2426. BRD7P3
2190. C4orf27	2269. FAM179B	2348. LOC285626	2427. MGC12916
2191. LOC641746	2270. LOC389458	2349. FLJ35946	2428. HOXB-AS5
2192. LOC100506394	2271. LOC100131320	2350. LINC00116	2429. MGC32805
2193. FYB	2272. ALS2CR8	2351. C1orf111	2430. LOC388499
2194. FLJ42289	2273. LOC100506776	2352. LOC440354	2431. 8-Sep
2195. LOC619207	2274. LOC728463	2353. LOC401177	2432. TMEM194A
2196. C12orf44	2275. SRCRB4D	2354. MGC27345	2433. LOC100289511
2197. MIR4520B	2276. SSX6	2355. NUPL1	2434. GLT25D2
2198. SLED1	2277. LOC100506834	2356. LOC255411	2435. LOC100127983
2199. KIAA0317	2278. MCIN	2357. CCDC144C	2436. ACN9
2200. FLJ41350	2279. CXorf27	2358. LOC100288842	2437. SNORA50
2201. LOC148145	2280. HDGFRP2	2359. LINC00282	2438. WBSR28
2202. C9orf173	2281. LOC553103	2360. LOC100289656	2439. FLJ36777
2203. OR8G2	2282. MINA	2361. SNORD47	2440. LOC149373
2204. RNU6-64	2283. PHF15	2362. REG1P	2441. TMEM55A
2205. METTL12	2284. MLL5	2363. LOC399829	2442. FLJ25328
2206. PCDHB18	2285. CXorf48	2364. CTAGE6P	2443. KIAA1804
2207. TAAR3	2286. TTTY9A	2365. NACAP1	2444. C6orf25
2208. PLEKHM1P	2287. LOC100128288	2366. RTFDC1	2445. LOC728190
2209. LOC730668	2288. 4-Mar	2367. LOC100507557	2446. ADCK3
2210. SLC35E2	2289. KIAA0226	2368. HMP19	2447. FAM159B
2211. EFHA1	2290. SNAR-E	2369. TGIF2-C20orf24	2448. LILRA3
2212. FLJ31306	2291. LOC442497	2370. FAM212B	2449. SELRC1
2213. C17orf66	2292. C6orf7	2371. CCDC42B	2450. C1orf204
2214. KIAA1161	2293. PKI55	2372. FAM196B	2451. SGOL2
2215. LOC401320	2294. FLJ40852	2373. FLJ33581	2452. OR8U8
2216. LOC550112	2295. SNAR-A9	2374. LOC100131347	2453. 15-Sep
2217. LOC100507266	2296. SNAR-G2	2375. CT45A4	2454. CENPC1
2218. LOC285000	2297. C14orf64	2376. LOC100506085	2455. GAGE5
2219. BAI1	2298. DYX1C1-CCPG1	2377. LOC100270804	2456. GAREM
2220. C17orf89	2299. LOC100506060	2378. LOC728218	2457. C11orf31
2221. GATS12	2300. LOC729950	2379. GOLGA6L7P	2458. LOC401134
2222. FLJ37201	2301. LOC645949	2380. CCDC147	2459. KIAA0947
2223. MIR3687	2302. FAM108B1	2381. MTERFD3	2460. GLTPD1
2224. LOC728989	2303. LOC440895	2382. TMEM27	2461. LOC148709
2225. LOC284379	2304. KIAA0101	2383. KIAA1875	2462. LOC150935
2226. LOC285847	2305. MIR143HG	2384. FLJ31662	2463. C8orf69
2227. HNRPLL	2306. LOC339298	2385. B3GNT1	2464. HPVC1
2228. LOC201617	2307. HEATR2	2386. LOC100129148	2465. CCDC67
2229. LOC100132831	2308. LOC147093	2387. LOC100130964	2466. KIAA0754
2230. LOC649352	2309. C11orf70	2388. LOC100130275	2467. LOC284801
2231. LOC285577	2310. SMIM11	2389. ZHX1-C8ORF76	2468. SGK196
2232. LOC100507443	2311. SNORD29	2390. LOC100288198	2469. FLJ41941
2233. C7orf72	2312. HNRNPU-AS1	2391. UTS2D	2470. LOC339593
2234. LOC100128505	2313. LOC643387	2392. LOC645212	2471. C6orf147
2235. LOC151171	2314. C21orf128	2393. C1QTNF9B-AS1	2472. DKFZP586I1420
2236. LOC283710	2315. LOC389765	2394. LOC100129216	2473. CENPVP1
2237. CCDC37	2316. C8orf12	2395. C7orf10	2474. TNFAIP8L2-SCNM1
2238. LOC728228	2317. PROSAPIP1	2396. LOC100128946	2475. SMEK3P
2239. LOC100287010	2318. C3orf72	2397. FAM35A	2476. 1-Mar
2240. LOC375196	2319. LOC340107	2398. PRKRIR	2477. LOC286094
2241. PRAMEF21	2320. SNORD78	2399. LOC100240735	2478. LOC101059948
2242. LPHN3	2321. LOC390705	2400. UNQ6494	2479. C14orf101
2243. SSFA2	2322. THEG5	2401. ATP5SL	2480. ADRBK2
2244. LOC100506655	2323. GUCY1A3	2402. SGK223	2481. LOC100093631
2245. FAM63A	2324. PRKCDBP	2403. LOC100506178	2482. SEL0
2246. C1orf114	2325. LOC100129269	2404. LOC100616530	