

Table SI. The expression of differentially expressed miRNAs.

miRNA ID	log <sub>2</sub> fold-change	P-value
hsa-mir-19a	11.02	8.40x10 <sup>-32</sup>
hsa-mir-592	10.27	4.49x10 <sup>-17</sup>
hsa-mir-135b	10.05	1.90x10 <sup>-27</sup>
hsa-mir-577	8.32	4.59x10 <sup>-18</sup>
hsa-mir-372	8.29	3.56x10 <sup>-3</sup>
hsa-mir-450b	8.22	4.76x10 <sup>-24</sup>
hsa-mir-590	8.00	2.76x10 <sup>-37</sup>
hsa-mir-653	7.96	8.99x10 <sup>-12</sup>
hsa-mir-374a	7.51	3.69x10 <sup>-48</sup>
hsa-mir-7-2	7.28	3.75x10 <sup>-13</sup>
hsa-mir-514a-2	7.14	1.28x10 <sup>-4</sup>
hsa-mir-514a-3	7.12	8.88x10 <sup>-5</sup>
hsa-mir-514a-1	7.12	1.28x10 <sup>-4</sup>
hsa-mir-142	7.03	4.54x10 <sup>-33</sup>
hsa-mir-19b-2	6.99	1.11x10 <sup>-41</sup>
hsa-mir-19b-1	6.78	2.30x10 <sup>-44</sup>
hsa-mir-889	6.53	4.12x10 <sup>-35</sup>
hsa-mir-454	6.43	2.33x10 <sup>-31</sup>
hsa-mir-21	6.32	1.01x10 <sup>-97</sup>
hsa-mir-203b	6.29	4.62x10 <sup>-23</sup>
hsa-mir-4668	6.25	3.32x10 <sup>-10</sup>
hsa-mir-144	6.24	7.92x10 <sup>-23</sup>
hsa-mir-628	6.09	2.84x10 <sup>-16</sup>
hsa-mir-499a	6.05	7.20x10 <sup>-5</sup>
hsa-mir-1-1	5.99	2.05x10 <sup>-11</sup>
hsa-mir-374c	5.98	6.65x10 <sup>-4</sup>
hsa-mir-424	5.96	1.20x10 <sup>-32</sup>
hsa-mir-153-2	5.90	3.17x10 <sup>-18</sup>
hsa-mir-153-1	5.88	1.10x10 <sup>-7</sup>
hsa-mir-552	5.80	1.06x10 <sup>-17</sup>
hsa-mir-542	5.76	6.19x10 <sup>-44</sup>
hsa-mir-376a-1	5.74	1.28x10 <sup>-9</sup>
hsa-mir-1245a	5.71	1.25x10 <sup>-8</sup>
hsa-mir-1277	5.71	1.08 x10 <sup>-8</sup>
hsa-mir-20a	5.64	2.37x10 <sup>-7</sup>
hsa-mir-549a	5.61	2.25x10 <sup>-8</sup>
hsa-mir-29b-1	5.47	2.98x10 <sup>-42</sup>
hsa-mir-5586	5.46	5.26x10 <sup>-8</sup>
hsa-mir-556	5.45	2.31x10 <sup>-7</sup>
hsa-mir-101-1	5.41	3.44x10 <sup>-63</sup>
hsa-mir-141	5.40	5.50x10 <sup>-56</sup>
hsa-mir-4791	5.40	2.85x10 <sup>-6</sup>
hsa-mir-101-2	5.40	1.42x10 <sup>-63</sup>
hsa-mir-335	5.37	7.05x10 <sup>-42</sup>
hsa-mir-452	5.35	4.59x10 <sup>-32</sup>
hsa-mir-1-2	5.34	3.76x10 <sup>-10</sup>
hsa-mir-96	5.31	5.16x10 <sup>-25</sup>
hsa-mir-301a	5.31	1.86x10 <sup>-17</sup>
hsa-mir-548f-1	5.31	1.07x10 <sup>-4</sup>
hsa-mir-215	5.21	1.1 x10 <sup>-12</sup>
hsa-mir-708	5.18	1.9 x10 <sup>-28</sup>
hsa-mir-182	5.17	1.18x10 <sup>-30</sup>
hsa-mir-508	5.17	3.95x10 <sup>-5</sup>
hsa-mir-376c	5.14	1.16x10 <sup>-6</sup>
hsa-mir-7705	5.12	1.97x10 <sup>-6</sup>
hsa-mir-3662	5.01	4.11x10 <sup>-5</sup>
hsa-mir-203a	5.00	2.0 x10 <sup>-24</sup>

Table SI. Continued.

miRNA ID	log <sub>2</sub> fold-change	P-value
hsa-mir-3682	4.98	1.53x10 <sup>-6</sup>
hsa-mir-582	4.97	1.65x10 <sup>-31</sup>
hsa-mir-450a-1	4.96	3.3 x10 <sup>-12</sup>
hsa-mir-450a-2	4.93	6.47x10 <sup>-12</sup>
hsa-mir-4444-2	4.92	1.83x10 <sup>-6</sup>
hsa-mir-570	4.92	5.1 x10 <sup>-6</sup>
hsa-mir-411	4.90	1.05x10 <sup>-17</sup>
hsa-mir-301b	4.83	4.11x10 <sup>-9</sup>
hsa-mir-380	4.80	1.31x10 <sup>-5</sup>
hsa-mir-206	4.80	1.12x10 <sup>-3</sup>
hsa-mir-16-2	4.79	1.60x10 <sup>-40</sup>
hsa-mir-379	4.72	1.04x10 <sup>-36</sup>
hsa-mir-643	4.71	9.11x10 <sup>-6</sup>
hsa-mir-376a-2	4.70	2.74x10 <sup>-5</sup>
hsa-mir-16-1	4.69	1.35x10 <sup>-39</sup>
hsa-mir-5683	4.68	5.4 x10 <sup>-4</sup>
hsa-mir-98	4.66	1.26x10 <sup>-41</sup>
hsa-mir-559	4.65	7.61x10 <sup>-5</sup>
hsa-mir-545	4.61	2.23x10 <sup>-5</sup>
hsa-mir-3613	4.61	3.86x10 <sup>-23</sup>
hsa-let-7f-1	4.55	1.38x10 <sup>-13</sup>
hsa-let-7f-2	4.54	1.7 x10 <sup>-13</sup>
hsa-mir-466	4.51	1.88x10 <sup>-3</sup>
hsa-mir-374b	4.49	3.58x10 <sup>-41</sup>
hsa-mir-656	4.47	6.96x10 <sup>-5</sup>
hsa-mir-4677	4.46	8.19x10 <sup>-23</sup>
hsa-mir-580	4.45	1.24x10 <sup>-4</sup>
hsa-mir-126	4.38	7.36x10 <sup>-47</sup>
hsa-mir-4444-1	4.35	4.8 x10 <sup>-5</sup>
hsa-mir-651	4.34	5.44x10 <sup>-12</sup>
hsa-mir-2355	4.33	1.38x10 <sup>-36</sup>
hsa-mir-655	4.32	3.99x10 <sup>-9</sup>
hsa-mir-218-2	4.32	8.57x10 <sup>-13</sup>
hsa-mir-3117	4.31	2.47x10 <sup>-3</sup>
hsa-mir-429	4.31	6.10x10 <sup>-31</sup>
hsa-mir-660	4.28	2.08x10 <sup>-26</sup>
hsa-mir-148a	4.26	9.27x10 <sup>-32</sup>
hsa-mir-376b	4.24	1.03x10 <sup>-8</sup>
hsa-mir-217	4.22	4.21x10 <sup>-12</sup>
hsa-mir-5000	4.17	2.84x10 <sup>-9</sup>
hsa-mir-3189	4.14	6.71x10 <sup>-4</sup>
hsa-mir-4766	4.13	4.28x10 <sup>-4</sup>
hsa-mir-136	4.12	4.58x10 <sup>-20</sup>
hsa-mir-3912	4.09	7.05x10 <sup>-4</sup>
hsa-mir-561	4.08	2.25x10 <sup>-3</sup>
hsa-mir-15a	4.05	1.71x10 <sup>-38</sup>
hsa-mir-3942	3.99	6.52x10 <sup>-4</sup>
hsa-mir-106a	3.98	1.24x10 <sup>-8</sup>
hsa-mir-1255a	3.97	4.77x10 <sup>-4</sup>
hsa-mir-4662a	3.95	1.32x10 <sup>-8</sup>
hsa-mir-7-3	3.93	7.68x10 <sup>-9</sup>
hsa-mir-369	3.91	1.73x10 <sup>-21</sup>
hsa-mir-3654	3.87	2.60x10 <sup>-3</sup>
hsa-mir-421	3.87	1.26x10 <sup>-12</sup>
hsa-mir-5706	3.85	7.99x10 <sup>-4</sup>
hsa-mir-4709	3.84	1.69x10 <sup>-3</sup>
hsa-mir-152	3.84	5.95x10 <sup>-35</sup>

Table SI. Continued.

miRNA ID	log <sub>2</sub> fold-change	P-value
hsa-mir-32	3.71	1.99x10 <sup>-26</sup>
hsa-mir-188	3.71	3.03x10 <sup>-12</sup>
hsa-mir-548au	3.70	4.27x10 <sup>-3</sup>
hsa-mir-17	3.68	1.75x10 <sup>-30</sup>
hsa-mir-495	3.66	3.09x10 <sup>-17</sup>
hsa-mir-10a	3.65	9.94x10 <sup>-17</sup>
hsa-mir-192	3.61	1.35x10 <sup>-19</sup>
hsa-mir-6733	3.58	3.79x10 <sup>-3</sup>
hsa-mir-3684	3.57	3.65x10 <sup>-3</sup>
hsa-mir-496	3.45	7.32x10 <sup>-9</sup>
hsa-mir-196a-2	3.43	4.10x10 <sup>-14</sup>
hsa-mir-33b	3.43	7.38x10 <sup>-8</sup>
hsa-mir-627	3.39	1.70x10 <sup>-8</sup>
hsa-mir-7-1	3.37	6.86x10 <sup>-24</sup>
hsa-mir-95	3.36	5.76x10 <sup>-13</sup>
hsa-mir-3913-2	3.34	7.24x10 <sup>-6</sup>
hsa-mir-199b	3.33	5.83x10 <sup>-18</sup>
hsa-mir-143	3.32	3.02x10 <sup>-10</sup>
hsa-mir-183	3.30	2.23x10 <sup>-17</sup>
hsa-mir-641	3.29	4.32x10 <sup>-3</sup>
hsa-mir-1537	3.26	6.44x10 <sup>-3</sup>
hsa-mir-30b	3.26	3.22x10 <sup>-22</sup>
hsa-mir-451a	3.23	4.32x10 <sup>-10</sup>
hsa-mir-223	3.22	1.56x10 <sup>-10</sup>
hsa-mir-33a	3.21	6.4 x10 <sup>-11</sup>
hsa-mir-3677	3.19	1.9 x10 <sup>-11</sup>
hsa-mir-190a	3.09	2.36x10 <sup>-13</sup>
hsa-mir-196b	3.07	3.31x10 <sup>-8</sup>
hsa-mir-4999	3.05	4.01x10 <sup>-4</sup>
hsa-mir-29c	2.98	3.98x10 <sup>-13</sup>
hsa-mir-29b-2	2.89	5.13x10 <sup>-19</sup>
hsa-mir-224	2.87	2.48 x10 <sup>-12</sup>
hsa-mir-3664	2.86	9.37x10 <sup>-4</sup>
hsa-mir-338	2.84	1.53x10 <sup>-8</sup>
hsa-mir-598	2.84	5.3 x10 <sup>-9</sup>
hsa-mir-340	2.80	1.16x10 <sup>-15</sup>
hsa-mir-337	2.75	5.77x10 <sup>-18</sup>
hsa-mir-18a	2.68	4.37x10 <sup>-11</sup>
hsa-mir-196a-1	2.67	2.70x10 <sup>-10</sup>
hsa-mir-199a-2	2.64	1.35x10 <sup>-14</sup>
hsa-mir-10b	2.63	6.49x10 <sup>-13</sup>
hsa-mir-24-2	2.62	8.82x10 <sup>-42</sup>
hsa-mir-26b	2.60	5.91x10 <sup>-23</sup>
hsa-mir-27a	2.59	6.35x10 <sup>-21</sup>
hsa-mir-31	2.58	3.44x10 <sup>-3</sup>
hsa-mir-24-1	2.57	6.4 x10 <sup>-40</sup>
hsa-mir-194-1	2.53	5.35x10 <sup>-18</sup>
hsa-mir-494	2.51	2.69x10 <sup>-5</sup>
hsa-mir-6854	2.51	1.86x10 <sup>-4</sup>
hsa-mir-181d	2.51	2.26x10 <sup>-7</sup>
hsa-mir-147b	2.50	1.94x10 <sup>-5</sup>
hsa-mir-34a	2.49	1.02x10 <sup>-16</sup>
hsa-mir-146a	2.43	3.4 x10 <sup>-9</sup>
hsa-mir-584	2.38	2.03x10 <sup>-8</sup>
hsa-mir-151a	2.35	2.1 x10 <sup>-19</sup>
hsa-mir-199a-1	2.35	1.72x10 <sup>-13</sup>

Table SI. Continued.

miRNA ID	log <sub>2</sub> fold-change	P-value
hsa-mir-30e	2.24	5.30x10 <sup>-32</sup>
hsa-mir-22	2.23	8.91x10 <sup>-21</sup>
hsa-mir-26a-1	2.22	1.13x10 <sup>-19</sup>
hsa-mir-26a-2	2.17	1.00x10 <sup>-18</sup>
hsa-mir-3913-1	2.12	5.2 x10 <sup>-4</sup>
hsa-mir-493	2.08	1.57x10 <sup>-11</sup>
hsa-mir-3136	2.08	4.07x10 <sup>-3</sup>
hsa-let-7g	2.04	1.15x10 <sup>-19</sup>
hsa-mir-5699	2.03	2.76x10 <sup>-3</sup>
hsa-mir-3065	2.02	1.28x10 <sup>-4</sup>
hsa-mir-324	-2.00	3.55x10 <sup>-40</sup>
hsa-mir-133b	-2.01	1.74x10 <sup>-5</sup>
hsa-mir-5091	-2.02	5.38x10 <sup>-8</sup>
hsa-mir-484	-2.03	2.11x10 <sup>-43</sup>
hsa-mir-4707	-2.03	4.13x10 <sup>-5</sup>
hsa-mir-1270	-2.05	3.79x10 <sup>-7</sup>
hsa-mir-1468	-2.05	1.20x10 <sup>-16</sup>
hsa-let-7c	-2.06	1.63x10 <sup>-11</sup>
hsa-mir-874	-2.08	4.07x10 <sup>-19</sup>
hsa-mir-671	-2.09	2.39x10 <sup>-33</sup>
hsa-mir-432	-2.10	1.64x10 <sup>-17</sup>
hsa-mir-320c-1	-2.21	1.92x10 <sup>-9</sup>
hsa-mir-296	-2.23	1.59x10 <sup>-9</sup>
hsa-mir-378a	-2.25	5.02x10 <sup>-43</sup>
hsa-mir-658	-2.27	2.25x10 <sup>-7</sup>
hsa-mir-5010	-2.35	3.8 x10 <sup>-4</sup>
hsa-mir-6716	-2.37	3.47x10 <sup>-12</sup>
hsa-mir-1229	-2.39	9.30x10 <sup>-10</sup>
hsa-mir-423	-2.40	7.45x10 <sup>-68</sup>
hsa-mir-4676	-2.42	7.41x10 <sup>-14</sup>
hsa-mir-2116	-2.43	7.75x10 <sup>-16</sup>
hsa-mir-3150b	-2.44	3.82x10 <sup>-11</sup>
hsa-mir-3928	-2.45	5.46x10 <sup>-18</sup>
hsa-mir-375	-2.48	1.46x10 <sup>-19</sup>
hsa-mir-125b-2	-2.48	9.28x10 <sup>-23</sup>
hsa-mir-7706	-2.48	1.05 x10 <sup>-25</sup>
hsa-mir-181a-1	-2.49	2.71x10 <sup>-45</sup>
hsa-mir-125b-1	-2.51	1.81x10 <sup>-23</sup>
hsa-mir-1228	-2.53	1.57x10 <sup>-17</sup>
hsa-mir-6892	-2.57	2.05x10 <sup>-26</sup>
hsa-mir-6820	-2.58	2.23x10 <sup>-10</sup>
hsa-mir-6798	-2.59	1.32x10 <sup>-9</sup>
hsa-mir-3127	-2.61	8.80x10 <sup>-31</sup>
hsa-mir-5698	-2.66	4.91x10 <sup>-11</sup>
hsa-mir-3615	-2.72	1.52x10 <sup>-34</sup>
hsa-mir-3605	-2.73	7.51x10 <sup>-25</sup>
hsa-mir-193b	-2.74	2.07x10 <sup>-45</sup>
hsa-mir-4787	-2.78	6.16x10 <sup>-10</sup>
hsa-mir-3944	-2.79	8.01x10 <sup>-12</sup>
hsa-mir-2110	-2.81	6.77x10 <sup>-38</sup>
hsa-mir-6125	-2.83	3.70x10 <sup>-13</sup>
hsa-mir-760	-2.83	4.15x10 <sup>-17</sup>
hsa-mir-5187	-2.85	3.66x10 <sup>-17</sup>
hsa-mir-4728	-2.87	2.40x10 <sup>-12</sup>
hsa-let-7b	-2.88	5.01x10 <sup>-102</sup>
hsa-mir-99b	-2.90	8.09x10 <sup>-85</sup>
hsa-mir-7641-1	-2.93	1.3 x10 <sup>-9</sup>

Table SI. Continued.

miRNA ID	log <sub>2</sub> fold-change	P-value
hsa-mir-92b	-2.93	1.83x10 <sup>-51</sup>
hsa-mir-615	-2.96	5.84x10 <sup>-8</sup>
hsa-mir-485	-2.96	3.2 x10 <sup>-39</sup>
hsa-mir-6808	-3.06	1.81x10 <sup>-17</sup>
hsa-mir-6802	-3.06	2.82x10 <sup>-17</sup>
hsa-mir-326	-3.09	1.76x10 <sup>-39</sup>
hsa-mir-6793	-3.11	9.53x10 <sup>-20</sup>
hsa-mir-1295a	-3.12	4.73x10 <sup>-16</sup>
hsa-mir-433	-3.13	6.02x10 <sup>-36</sup>
hsa-mir-7155	-3.15	9.30x10 <sup>-16</sup>
hsa-mir-3917	-3.20	8.42x10 <sup>-33</sup>
hsa-mir-193a	-3.25	3.52x10 <sup>-67</sup>
hsa-mir-1343	-3.26	6.35x10 <sup>-26</sup>
hsa-mir-3940	-3.32	2.01x10 <sup>-32</sup>
hsa-mir-1249	-3.40	6.12x10 <sup>-46</sup>
hsa-mir-150	-3.42	2.3 x10 <sup>-55</sup>
hsa-mir-1296	-3.43	1.91x10 <sup>-67</sup>
hsa-mir-3173	-3.45	2.17x10 <sup>-33</sup>
hsa-mir-1226	-3.45	7.54x10 <sup>-37</sup>
hsa-mir-1180	-3.46	2.06x10 <sup>-51</sup>
hsa-let-7d	-3.46	1.73x10 <sup>-294</sup>
hsa-mir-885	-3.51	3.21x10 <sup>-8</sup>
hsa-mir-187	-3.52	2.84x10 <sup>-14</sup>
hsa-mir-7702	-3.54	1.28x10 <sup>-22</sup>
hsa-mir-1976	-3.62	1.26x10 <sup>-102</sup>
hsa-mir-125a	-3.69	5.37x10 <sup>-151</sup>
hsa-mir-145	-3.69	8.70x10 <sup>-68</sup>
hsa-mir-6720	-3.74	2.66x10 <sup>-33</sup>
hsa-mir-605	-3.81	1.14x10 <sup>-40</sup>
hsa-mir-574	-3.82	4.64x10 <sup>-127</sup>
hsa-mir-133a-1	-3.85	1.41x10 <sup>-35</sup>
hsa-mir-1306	-3.88	1.34x10 <sup>-150</sup>
hsa-mir-642a	-3.93	4.43x10 <sup>-51</sup>
hsa-mir-133a-2	-4.03	8.8 x10 <sup>-42</sup>
hsa-mir-766	-4.26	3.7 x10 <sup>-185</sup>
hsa-mir-7641-2	-4.27	1.62x10 <sup>-21</sup>
hsa-mir-149	-4.28	1.55x10 <sup>-104</sup>
hsa-mir-197	-4.52	<0.001
hsa-mir-490	-4.57	6.87x10 <sup>-21</sup>
hsa-mir-1224	-4.60	7.43x10 <sup>-24</sup>
hsa-mir-129-2	-4.61	1.07x10 <sup>-55</sup>
hsa-mir-129-1	-4.83	5.59x10 <sup>-56</sup>
hsa-mir-139	-5.00	4.10x10 <sup>-219</sup>
hsa-mir-6511b-1	-5.06	1.09x10 <sup>-111</sup>
hsa-mir-6511b-2	-5.08	1.89x10 <sup>-134</sup>
hsa-mir-486-1	-5.10	1.46x10 <sup>-132</sup>
hsa-mir-486-2	-5.12	1.30x10 <sup>-135</sup>
hsa-mir-328	-5.61	<0.001
hsa-mir-504	-6.16	1.14x10 <sup>-139</sup>

Hsa, *Homo sapiens*; miRNA/miR, microRNA.

Table SII. Expression of 1,322 differentially upregulated genes (miR-424-5p mimics vs. mimics control, P&lt;0.05).

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
AC015971.2	7.52	Antisense	NA
DDX50P1	7.33	Processed pseudogene	DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 50 pseudogene 1
KNOP1P5	7.26	Processed pseudogene	Lysine-rich nucleolar protein 1 pseudogene 5
AC010733.5	7.19	Processed pseudogene	NA
AP000560.3	7.11	Tec	NA
RP11-1060J15.3	7.03	Processed pseudogene	NA
RP11-67L14.1	6.94	Tec	NA
Y RNA	6.85	Misc RNA	Y rRNA
RNU7-84P	6.75	SnrNA	RNA U7 small nuclear 84 pseudogene
RP11-301L8.2	6.75	Antisense	NA
AC113192.1	6.75	MirNA	NA
AC092881.1	6.75	Protein coding	NA
CEP170P1	6.75	Transcribed unprocessed pseudogene	Centrosomal protein 170kda pseudogene 1
NADK2-AS1	6.75	Antisense	NADK2 antisense RNA 1
ALOX12P2	6.64	Transcribed unprocessed pseudogene	ArachidoNAtE 12-lipoxygenase pseudogene 2
MIR133A1HG	6.64	Antisense	MIR133A1 host gene
RNU7-49P	6.53	SnrNA	RNA U7 small nuclear 49 pseudogene
SLC10A5	6.53	Protein coding	Solute carrier family 10 member 5
RP11-536L3.4	6.53	Processed pseudogene	NA
RNU6-407P	6.53	SnrNA	RNA U6 small nuclear 407 pseudogene
RP11-834C11.15	6.53	LincRNA	NA
PHACTR2P1	6.53	Processed pseudogene	Phosphatase and actin regulator 2 pseudogene 1
CTD-2553L13.5	6.40	Tec	NA
CYCSP52	6.40	Processed pseudogene	Cytochrome c somatic pseudogene 52
C11orf42	6.40	Protein coding	Chromosome 11 open reading frame 42
AC009303.1	6.40	Antisense	NA
RN7SL566P	6.40	Misc RNA	RNA 7SL cytoplasmic 566 pseudogene
FGL2	6.40	Protein coding	Fibrinogen-like 2
RP11-415J8.7	6.40	LincRNA	NA
RP11-621L6.2	6.40	Antisense	NA
EEF1A1P30	6.40	Processed pseudogene	Eukaryotic translation elongation factor 1 α 1 pseudogene 30
DOCK4-AS1	6.40	Antisense	DOCK4 antisense RNA 1
RP5-1125A11.4	6.40	LincRNA	NA
RP11-157K17.5	6.40	Transcribed processed pseudogene	NA
Metazoa SRP	6.40	Misc RNA	Metazoan signal recognition particle RNA
TMED11P	6.27	Unitary pseudogene	Transmembrane p24 trafficking protein 11 pseudogene
MIR331	6.27	MirNA	MicrorNA 331
SNORA38	6.27	SnrNA	Small nucleolar RNA H/ACA box 38
AC092415.1	6.27	LincRNA	NA
RP11-216B9.8	6.27	Sense intronic	NA
B3GAT2	6.27	Protein coding	B-13-glucuronyltransferase 2
RP11-253M7.6	6.27	Sense intronic	NA
CTD-3236F5.1	6.27	Processed pseudogene	NA
ENPP7P12	6.27	Processed pseudogene	Ectonucleotide pyrophosphatase/phosphodiesterase 7 pseudogene 12
RP11-620J15.1	6.27	Antisense	NA
RP4-631H13.6	6.27	Processed pseudogene	NA
CECR7	6.27	LincRNA	Cat eye syndrome chromosome region candidate 7 (non-protein coding)
RP11-80H5.7	6.27	LincRNA	NA
RP1-20B11.2	6.27	Antisense	NA

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
AL023806.1	6.27	Protein coding	NA
RP11-184A2.2	6.27	Antisense	NA
RPS15AP10	6.12	Processed pseudogene	Ribosomal protein S15a pseudogene 10
PSG9	6.12	Protein coding	PregNancy specific β-1-glycoprotein 9
RP11-356M20.3	6.12	Sense intronic	NA
LMF1-AS1	6.12	Antisense	LMF1 antisense RNA 1
RNU6-652P	6.12	SnrNA	RNA U6 small nuclear 652 pseudogene
MIR573	6.12	MirNA	MicrorNA 573
RP11-46A10.8	6.12	Processed pseudogene	NA
CTD-2553L13.4	6.12	Sense intronic	NA
RP11-503N18.5	6.12	Processed pseudogene	NA
RP11-410L14.1	6.12	Processed pseudogene	NA
NCAM1-AS1	6.12	Antisense	NCAM1 antisense RNA1
RP11-844P9.4	6.12	Processed pseudogene	NA
CMAHP	6.12	Unitary pseudogene	Cytidine monophospho-N-acetylneuraminc acid hydroxylase pseudogene
MIR3153	6.12	MirNA	MicrorNA 3153
HMGN1P8	6.12	Processed pseudogene	High mobility group nucleosome binding domain 1 pseudogene 8
RN7SKP74	6.12	Misc RNA	RNA 7SK small nuclear pseudogene 74
AC044907.1	6.12	MirNA	NA
RP11-29G8.3	6.12	Processed transcript	NA
RN7SKP271	6.12	Misc RNA	RNA 7SK small nuclear pseudogene 271
RP11-73M18.11	6.12	Transcribed processed pseudogene	NA
OPA1-AS1	6.12	Antisense	OPA1 antisense RNA 1
MIR4710	5.95	MirNA	MicrorNA 4710
RP11-464D20.6	5.95	Sense intronic	NA
RP11-613M10.9	5.95	Protein coding	NA
PKD2L2	5.95	Protein coding	Polycystic kidney disease 2-like 2
RP11-723D22.3	5.95	Antisense	NA
RP3-486I3.7	5.95	LincrNA	NA
BNIP3P5	5.95	Processed pseudogene	BCL2/adenovirus E1B 19kda interacting protein 3 pseudogene 5
GCKR	5.95	Protein coding	GlucokiNAse (hexokiNAse 4) regulator
RP11-1415C14.3	5.95	Unprocessed pseudogene	NA
LIMD1-AS1	5.95	Antisense	LIMD1 antisense RNA 1
MT1P1	5.95	Processed pseudogene	Metallothionein 1 pseudogene 1
RP11-231L11.3	5.95	Sense intronic	NA
RP11-70L8.5	5.95	Tec	NA
TGFA-IT1	5.95	Sense intronic	TGFA intronic transcript 1
VWA5A	5.95	Protein coding	Von Willebrand factor A domain containing 5A
RP11-241F15.7	5.95	Unprocessed pseudogene	NA
RP11-98J23.2	5.95	Unprocessed pseudogene	NA
SPINT5P	5.95	Processed pseudogene	Serine peptidase inhibitor Kunitz type 5 pseudogene
FRRS1	5.95	Protein coding	Ferric-chelate reductase 1
RP3-425C14.5	5.95	Tec	NA
RNU1-16P	5.95	SnrNA	RNA U1 small nuclear 16 pseudogene
VN1R107P	5.95	Unprocessed pseudogene	VomeroNAsal 1 receptor 107 pseudogene
RP11-6N17.2	5.95	LincrNA	NA
SNORA75	5.95	SnorNA	Small nucleolar RNA H/ACA box 75
RPL7P50	5.95	Processed pseudogene	Ribosomal protein L7 pseudogene 50
HERC2P11	5.95	Unprocessed pseudogene	Hect domain and RLD 2 pseudogene 11

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
ADAM1B	5.95	Unitary pseudogene	ADAM metallopeptidase domain 1B (pseudogene)
SENP3-EIF4A1	5.95	Protein coding	SENP3-EIF4A1 readthrough (NMD candidate)
RNA5SP379	5.76	RrRNA	RNA 5S ribosomal pseudogene 379
RP11-397P13.6	5.76	Processed pseudogene	NA
BMP2KL	5.76	Processed pseudogene	BMP2 inducible kiNAsE-like pseudogene
UHRF2P1	5.76	Processed pseudogene	Ubiquitin-like with PHD and ring finger domains 2 pseudogene 1
RP11-651K21.1	5.76	Processed pseudogene	NA
RP3-395M20.2	5.76	Antisense	NA
GREB1L	5.76	Protein coding	Growth regulation by estrogen in breast cancer-like
CTC-523E23.4	5.76	LincRNA	NA
RP11-90L20.2	5.76	Antisense	NA
AC005077.8	5.76	Processed pseudogene	NA
RP11-791G15.2	5.76	LincRNA	NA
RNU6-638P	5.76	SnrNA	RNA U6 small nuclear 638 pseudogene
CTD-2011F17.2	5.76	Antisense	NA
RPS3P2	5.76	Processed pseudogene	Ribosomal protein S3 pseudogene 2
SNORA70	5.76	SnorNA	Small nucleolar RNA SNORA70
RP11-480C16.1	5.76	LincRNA	NA
COL23A1	5.76	Protein coding	Collagen type XXIII $\alpha$ 1
RNU4-31P	5.76	SnrNA	RNA U4 small nuclear 31 pseudogene
PABPC1P3	5.76	Processed pseudogene	Poly(A) binding protein cytoplasmic 1 pseudogene 3
RP11-130L8.3	5.76	Processed pseudogene	NA
RP4-761J14.8	5.76	Antisense	NA
RP1-97J1.2	5.76	LincRNA	NA
CTA-221G9.12	5.76	Antisense	NA
RPL29P24	5.76	Processed pseudogene	Ribosomal protein L29 pseudogene 24
RNU6-689P	5.76	SnrNA	RNA U6 small nuclear 689 pseudogene
MRAP	5.76	Protein coding	Melanocortin 2 receptor accessory protein
RP11-2E11.6	5.76	Antisense	NA
SLC22A9	5.76	Protein coding	Solute carrier family 22 (organic anion transporter) member 9
CTD-2530N21.5	5.76	Sense overlapping	NA
C9orf106	5.76	LincRNA	Chromosome 9 open reading frame 106
NAV2-AS4	5.76	Antisense	NAV2 antisense RNA 4
CICP3	5.76	Processed pseudogene	Capicua transcriptioNAL repressor pseudogene 3
RP11-475E11.2	5.76	Processed pseudogene	NA
CYP26C1	5.76	Protein coding	Cytochrome P450 family 26 subfamily C member 1
RP11-434P11.2	5.76	LincRNA	NA
RP11-173A6.2	5.76	Processed pseudogene	NA
RP5-916O11.3	5.76	Processed pseudogene	NA
RNA5SP101	5.76	RrRNA	RNA 5S ribosomal pseudogene 101
RP11-434P11.1	5.76	Tec	NA
PRDX2P3	5.76	Processed pseudogene	Peroxiredoxin 2 pseudogene 3
CEACAM22P	5.76	Transcribed unprocessed pseudogene	Carcinoembryonic antigen-related cell adhesion molecule 22 pseudogene
HCFC1-AS1	5.76	Antisense	HCFC1 antisense RNA 1
RP11-182N22.9	5.76	Tec	NA
SLC46A2	5.76	Protein coding	Solute carrier family 46 member 2
RP11-405F3.5	5.76	Antisense	NA
uc 338	5.76	Misc RNA	Tuc338
RP11-533K9.3	5.76	Unprocessed pseudogene	NA
RP11-63K6.1	5.76	Processed pseudogene	NA
CYP2B7P	5.76	Transcribed unprocessed pseudogene	Cytochrome P450 family 2 subfamily B member 7 pseudogene
RP11-166B2.1	5.76	Protein coding	Putative NPIP-like protein LOC729978

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
MIR4258	5.76	MirNA	Microrna 4258
RP11-423G4.10	5.76	Sense intronic	NA
AC019118.4	5.54	LincrNA	NA
UBE2CP3	5.54	Processed pseudogene	Ubiquitin conjugating enzyme E2C pseudogene 3
GPR182	5.54	Protein coding	G protein-coupled receptor 182
PCDHGB5	5.54	Protein coding	Protocadherin γ subfamily B 5
CTD-2653D5.1	5.54	Antisense	NA
ATP5HP4	5.54	Processed pseudogene	ATP synthase H+ transporting mitochondrial Fo complex subunit D pseudogene 4
RN7SL809P	5.54	Misc RNA	RNA 7SL cytoplasmic 809 pseudogene
RP11-676J12.6	5.54	Antisense	NA
TYRO3P	5.54	Processed pseudogene	TYRO3P protein tyrosine kinase pseudogene
U7	5.54	SnrNA	U7 small nuclear RNA
RP4-742J24.2	5.54	Antisense	NA
TAL1	5.54	Protein coding	T-cell acute lymphocytic leukemia 1
AC018867.1	5.54	Protein coding	NA
AC097713.4	5.54	LincrNA	NA
CTD-2012J19.2	5.54	Unprocessed pseudogene	NA
RNU2-22P	5.54	SnrNA	RNA U2 small nuclear 22 pseudogene
AC073063.10	5.54	Processed pseudogene	NA
AC092641.2	5.54	Processed pseudogene	NA
PM20D1	5.54	Protein coding	Peptidase M20 domain containing 1
RP11-281B1.2	5.54	Processed pseudogene	NA
DLEU7-AS1	5.54	Antisense	DLEU7 antisense RNA 1
RNU6-196P	5.54	SnrNA	RNA U6 small nuclear 196 pseudogene
RP11-845C23.2	5.54	Sense intronic	NA
WFDC21P	5.54	Processed transcript	WAP four-disulfide core domain 21 pseudogene
RP11-805L22.3	5.54	LincrNA	NA
IFNA20P	5.54	Unprocessed pseudogene	Interferon α 20 pseudogene
RNU6-431P	5.54	SnrNA	RNA U6 small nuclear 431 pseudogene
RP11-572C15.3	5.54	Unprocessed pseudogene	NA
RP11-307C18.1	5.54	Antisense	NA
SAPCD1-AS1	5.54	Antisense	SAPCD1 antisense RNA 1
RP11-573M3.2	5.54	Tec	NA
OR5BK1P	5.54	Unprocessed pseudogene	Olfactory receptor family 5 subfamily BK member 1 pseudogene
RP11-122A21.2	5.54	Antisense	NA
NDST3	5.54	Protein coding	N-deacetylase/N-sulfotransferase (heparan glucosaminyl) 3
AC073333.8	5.54	Antisense	NA
SNX18P9	5.54	Processed pseudogene	Sorting nexin 18 pseudogene 9
RP11-712B9.6	5.54	Processed pseudogene	NA
RP11-25G10.2	5.54	Antisense	NA
RP11-647P12.1	5.54	LincrNA	NA
TAS2R3	5.54	Protein coding	Taste 2 receptor member 3
AC008281.1	5.54	LincrNA	NA
RP11-797A18.6	5.54	Sense intronic	NA
RP11-946P6.6	5.54	Sense intronic	NA
RP11-399K21.10	5.54	Antisense	NA
OR7E126P	5.54	Unprocessed pseudogene	Olfactory receptor family 7 subfamily E member 126 pseudogene
AC091849.1	5.54	MirNA	NA
RP4-620E11.4	5.54	Processed pseudogene	NA
RP11-752G15.10	5.54	Tec	NA

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
RP11-665J16.1	5.54	Antisense	NA
GHRL	5.54	Protein coding	Ghrelin/obestatin prepropeptide
RP11-310H4.6	5.54	Unprocessed pseudogene	NA
THOC7-AS1	5.54	Antisense	THOC7 antisense RNA 1
CTD-2329K10.1	5.54	Antisense	NA
FOXD4L3	5.54	Protein coding	Forkhead box D4-like 3
RP11-454P21.1	5.54	LincRNA	NA
RP11-723O4.6	5.54	Protein coding	Uncharacterized protein FLJ43738
KIAA0196-AS1	5.54	Antisense	KIAA0196 antisense RNA 1
AC098820.4	5.54	Antisense	NA
RP11-6O2.3	5.54	Antisense	NA
TACR2	5.54	Protein coding	Tachykinin receptor 2
AC015922.5	5.54	Transcribed unprocessed pseudogene	NA
SND1-IT1	5.54	LincRNA	SND1 intronic transcript 1
RPL7AP11	5.54	Processed pseudogene	Ribosomal protein L7a pseudogene 11
CTB-102L5.8	5.54	Sense intronic	NA
DDX3P1	5.54	Processed pseudogene	DEAD (Asp-Glu-Ala-Asp) box polypeptide 3 pseudogene 1
NYAP2	5.54	Protein coding	NeuroNAl tyrosine-phosphorylated phosphoinositide-3-kiNAse adaptor 2
RP11-777F6.3	5.54	Processed pseudogene	NA
AC023590.1	5.54	Antisense	NA
RP11-326I11.4	5.54	LincRNA	NA
C22orf31	5.54	Protein coding	Chromosome 22 open reading frame 31
NFYAP1	5.54	Processed pseudogene	Nuclear transcription factor Y subunit $\alpha$ pseudogene 1
Y RNA	5.54	Misc RNA	Y rNA
ANGPTL3	5.54	Protein coding	Angiopoietin like 3
RPL13P4	5.54	Processed pseudogene	Ribosomal protein L13 pseudogene 4
RN7SL368P	5.54	Misc RNA	RNA 7SL cytoplasmic 368 pseudogene
RP11-806L2.6	5.54	Antisense	NA
TSPAN8	5.54	Protein coding	Tetraspanin 8
AL773572.7	4.65	Antisense	NA
RP11-180P8.1	4.34	LincRNA	NA
PSMD6-AS2	4.34	Antisense	PSMD6 antisense RNA 2
EDRF1-AS1	4.28	Antisense	EDRF1 antisense RNA 1
RP11-242D8.2	4.09	Unprocessed pseudogene	NA
ZBED6	4.00	Protein coding	Zinc finger BED-type containing 6
HCG4P7	3.95	Unprocessed pseudogene	HLA complex group 4 pseudogene 7
LRRC37A15P	3.87	Processed pseudogene	Leucine-rich repeat containing 37 member A15 pseudogene
RPS14P4	3.86	Processed pseudogene	Ribosomal protein S14 pseudogene 4
RP11-23N2.4	3.79	Antisense	NA
RN7SKP16	3.79	Misc RNA	RNA 7SK small nuclear pseudogene 16
RIMKLBP2	3.79	Processed pseudogene	Ribosomal modification protein rimk-like family member B pseudogene 2
SNX18P12	3.73	Processed pseudogene	Sorting nexin 18 pseudogene 12
RP11-181E10.3	3.73	LincRNA	NA
CTC-1337H24.3	3.70	LincRNA	NA
RNA5SP187	3.70	RrRNA	RNA 5S ribosomal pseudogene 187
ERVW-1	3.70	Protein coding	Endogenous retrovirus group W member 1
RP11-645C24.5	3.70	LincRNA	NA
CRTC3-AS1	3.70	Antisense	CRTC3 antisense RNA 1
RP13-225O21.2	3.63	Antisense	NA

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
ARNTL2-AS1	3.61	Antisense	ARNTL2 antisense RNA 1
RP11-459F6.3	3.61	Antisense	NA
CYP19A1	3.61	Protein coding	Cytochrome P450 family 19 subfamily A member 1
FSIP2	3.58	Protein coding	Fibrous sheath interacting protein 2
RP11-806O11.1	3.51	Processed transcript	NA
Y RNA	3.51	Misc RNA	Y rNA
RP1-290F12.3	3.51	Processed pseudogene	NA
AC137932.5	3.45	Antisense	NA
RP11-218M11.7	3.41	Tec	NA
DACT3-AS1	3.41	Antisense	DACT3 antisense RNA 1
RP11-28G8.1	3.41	Antisense	NA
ASAH2	3.41	Protein coding	N-acylsphingosine amidohydrolase (non-lysosomal ceramidase) 2
RP11-95P13.1	3.41	LincRNA	NA
CAPNS2	3.41	Protein coding	Calpain small subunit 2
ETV5-AS1	3.41	Antisense	ETV5 antisense RNA 1
RN7SL648P	3.41	Misc RNA	RNA 7SL cytoplasmic 648 pseudogene
CTD-3126B10.5	3.41	Tec	NA
CFTR	3.41	Protein coding	Cystic fibrosis transmembrane conductance regulator
RP11-180I4.1	3.41	Processed pseudogene	NA
RP5-1139B12.4	3.31	Antisense	NA
HCG9P5	3.30	Unprocessed pseudogene	HLA complex group 9 pseudogene 5
AC147651.5	3.29	Antisense	NA
MTND5P28	3.29	Processed pseudogene	Mitochondrially encoded NADH:ubiquinone oxidoreductase core subunit 5 pseudogene 28
AC007279.2	3.29	Processed pseudogene	NA
PFN1P4	3.29	Processed pseudogene	Profilin 1 pseudogene 4
CTD-2083E4.5	3.29	Processed pseudogene	NA
RP11-381E24.1	3.29	Processed pseudogene	NA
MIR186	3.29	MirNA	MicrorNA 186
RP11-21A7A.4	3.29	Antisense	NA
RP11-572C15.5	3.29	LincRNA	NA
RP11-1260E13.4	3.29	Processed transcript	NA
ZNF460	3.26	Protein coding	Zinc finger protein 460
RP11-598P20.3	3.26	Processed pseudogene	NA
VN1R108P	3.24	Unprocessed pseudogene	VomeroNASal 1 receptor 108 pseudogene
GOLGA6B	3.22	Protein coding	Golgin A6 family member B
GALNT4	3.21	Protein coding	Polypeptide N-acetylgalactosaminyltransferase 4
EFCAB10	3.17	Protein coding	EF-hand calcium binding domain 10
RP11-68I3.4	3.17	Sense intronic	NA
HERC2P5	3.17	Transcribed unprocessed pseudogene	Hect domain and RLD 2 pseudogene 5
AD001527.7	3.17	Antisense	NA
RP11-507K2.6	3.17	Sense intronic	NA
RP11-700J17.1	3.17	Antisense	NA
RP4-584D14.5	3.17	Antisense	NA
EPX	3.17	Protein coding	Eosinophil peroxidase
AC003104.1	3.17	Sense intronic	NA
RP11-582J16.4	3.14	Antisense	NA
DLEU7	3.11	Protein coding	Deleted in lymphocytic leukemia 7
RP11-73B2.6	3.10	Transcribed processed pseudogene	NA
RP11-385F5.4	3.10	Antisense	NA
RP11-471B22.2	3.10	Antisense	NA
VN1R81P	3.10	Unprocessed pseudogene	VomeroNASal 1 receptor 81 pseudogene

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
KB-318B8.7	3.08	Sense intronic	NA
RP11-622O11.4	3.06	LincRNA	NA
HOXB-AS2	3.04	Antisense	HOXB cluster antisense RNA 2
PSMC1P4	3.03	Processed pseudogene	Proteasome (prosome macropain) 26S subunit atpase 1 pseudogene 4
BMP7-AS1	3.03	Antisense	BMP7 antisense RNA 1
HERC2P10	3.03	Unprocessed pseudogene	Hect domain and RLD 2 pseudogene 10
RP11-757G1.5	3.03	Antisense	NA
PPP1R26P1	3.03	Processed pseudogene	Protein phosphatase 1 regulatory subunit 26 pseudogene 1
ACKR2	3.03	Protein coding	Atypical chemokine receptor 2
RP11-661C3.2	3.03	Sense intronic	NA
RP5-1139B12.2	3.03	Antisense	NA
AC016745.3	3.03	Antisense	NA
MIR4435-1	3.03	MirNA	MicrorNA 4435-1
RP4-545K15.5	3.03	Sense overlapping	NA
RP11-166P13.4	3.03	Antisense	NA
EYS	3.03	Protein coding	Eyes shut homolog (Drosophila)
DSC3	3.03	Protein coding	Desmocollin 3
NR5A2	3.03	Protein coding	Nuclear receptor subfamily 5 group A member 2
Y RNA	3.03	Misc RNA	Y rNA
DSTNP1	3.02	Processed pseudogene	Destrin (actin depolymerizing factor) pseudogene 1
RP11-797A18.5	2.95	Tec	NA
RP11-426D19.1	2.92	Tec	NA
ZNF658B	2.92	Transcribed unprocessed pseudogene	Zinc finger protein 658B pseudogene
CCDC144CP	2.88	Transcribed processed pseudogene	Coiled-coil domain containing 144C pseudogene
RP11-439E19.10	2.88	Antisense	NA
TDRD12	2.88	Protein coding	Tudor domain containing 12
RPL13AP7	2.88	Processed pseudogene	Ribosomal protein L13a pseudogene 7
LL22NC03-N64E9.1	2.88	Sense intronic	NA
PCDHB12	2.88	Protein coding	Protocadherin β 12
CTD-2525I3.6	2.88	Antisense	NA
CD200R1L	2.88	Protein coding	CD200 receptor 1 like
RP11-1334A24.6	2.88	Antisense	NA
DNAJC19P5	2.88	Processed pseudogene	DNAJ heat shock protein family (Hsp40) member C19 pseudogene 5
RP11-299J3.6	2.88	Unprocessed pseudogene	NA
RP11-392O17.1	2.88	LincRNA	NA
GRK6P1	2.88	Processed pseudogene	G protein-coupled receptor kiNAse 6 pseudogene 1
RP11-268P4.6	2.88	Sense intronic	NA
RBM44	2.88	Protein coding	RNA binding motif protein 44
BARHL1	2.88	Protein coding	Barh-like homeobox 1
POU5F1P3	2.88	Processed pseudogene	POU class 5 homeobox 1 pseudogene 3
RBP2	2.88	Protein coding	Retinol binding protein 2
HIST2H2BA	2.88	Transcribed unprocessed pseudogene	Histone cluster 2 h2ba (pseudogene)
RPL7P32	2.88	Processed pseudogene	Ribosomal protein L7 pseudogene 32
RP11-244F12.3	2.88	Antisense	NA
DYNLRB2	2.88	Protein coding	Dynein light chain roadblock-type 2
RP11-439L18.2	2.87	LincRNA	NA
ADAM32	2.87	Protein coding	ADAM metallopeptidase domain 32
CD302	2.84	Protein coding	CD302 molecule
CRYZP1	2.82	Processed pseudogene	Crystallin zeta pseudogene 1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
CTD-2647L4.4	2.81	Sense intronic	NA
RP11-230F18.6	2.78	Sense intronic	NA
RPS6P25	2.78	Processed pseudogene	Ribosomal protein S6 pseudogene 25
RN7SL262P	2.78	Misc RNA	RNA 7SL cytoplasmic 262 pseudogene
CTB-35F21.2	2.78	LincrNA	NA
RP3-523E19.2	2.78	Antisense	NA
RP6-109B7.4	2.78	LincrNA	NA
RP11-75C10.7	2.78	Sense intronic	NA
MIR1180	2.78	MirNA	MicrorNA 1180
RPL23AP53	2.78	Transcribed processed pseudogene	Ribosomal protein L23a pseudogene 53
RP3-461F17.3	2.78	Protein coding	NA
RP4-694A7.2	2.78	Antisense	NA
NBEAL1	2.75	Protein coding	Neurobeachin like 1
MRPS18AP1	2.69	Processed pseudogene	Mitochondrial ribosomal protein S18A pseudogene 1
RP11-677M14.6	2.69	Processed pseudogene	NA
RP11-544A12.4	2.69	Antisense	NA
RP13-726E6.2	2.69	LincrNA	NA
KRT8P46	2.69	Processed pseudogene	Keratin 8 pseudogene 46
RNU6-1262P	2.69	SnRNA	RNA U6 small nuclear 1262 pseudogene
TSSK3	2.68	Protein coding	Testis-specific serine kiNase 3
AC012358.8	2.68	Antisense	NA
RN7SL481P	2.68	Misc RNA	RNA 7SL cytoplasmic 481 pseudogene
RP11-427L15.2	2.68	Sense intronic	NA
LL22NC03-2H8.4	2.65	LincrNA	NA
TATDN2P2	2.64	Processed pseudogene	Tatd dNAse domain containing 2 pseudogene 2
RP11-582J16.5	2.63	Antisense	NA
AC007128.1	2.62	Antisense	NA
HSD3BP5	2.62	Transcribed unprocessed pseudogene	Hydroxy-delta-5-steroid dehydrogeNAse 3 $\beta$ pseudogene 5
REL	2.62	Protein coding	V-rel avian reticuloendotheliosis viral oncogene homolog
RP11-4C20.3	2.61	LincrNA	NA
SOX6	2.61	Protein coding	SRY-box 6
RP11-71H17.8	2.61	Tec	NA
CLDN18	2.61	Protein coding	Claudin 18
NRG4	2.61	Protein coding	Neuregulin 4
PLAC4	2.61	Tec	Placenta specific 4
RP11-557N21.1	2.61	LincrNA	NA
ADCY5	2.59	Protein coding	Adenylate cyclase 5
RP11-366L20.2	2.59	Antisense	NA
MIR3125	2.59	MirNA	MicrorNA 3125
DHF RP1	2.59	Processed pseudogene	Dihydrofolate reductase pseudogene 1
RP11-30L15.4	2.59	Processed pseudogene	NA
RP11-162G10.5	2.59	Antisense	NA
SLC22A1	2.59	Protein coding	Solute carrier family 22 (organic cation transporter) member 1
DCUN1D2-AS	2.59	Antisense	DCUN1D2 antisense RNA
VWDE	2.56	Protein coding	Von Willebrand factor D and EGF domains
ZNF571-AS1	2.54	Antisense	ZNF571 antisense RNA 1
CTD-2377O17.1	2.54	Antisense	NA
USP37	2.53	Protein coding	Ubiquitin specific peptidase 37
CTD-2010I16.1	2.52	Processed pseudogene	NA
CTD-2002H8.2	2.52	Sense overlapping	NA
AC092301.3	2.48	Antisense	NA
RP11-110I1.14	2.48	LincrNA	NA
RARRES2P2	2.48	Processed pseudogene	Retinoic acid receptor responder (tazarotene induced) 2 pseudogene 2

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
AC092835.2	2.48	Protein coding	NA
RP11-697E22.2	2.48	Antisense	NA
CRYBG3	2.47	Protein coding	Crystallin β-γ domain containing 3
SMG1P1	2.46	Transcribed unprocessed pseudogene	SMG1 pseudogene 1
AC083884.8	2.45	Processed transcript	NA
CSMD3	2.41	Protein coding	CUB and Sushi multiple domains 3
OMG	2.40	Protein coding	Oligodendrocyte myelin glycoprotein
RP11-380G5.2	2.39	Sense intronic	NA
MRPS31P4	2.39	Transcribed unprocessed pseudogene	Mitochondrial ribosomal protein S31 pseudogene 4
CXorf57	2.39	Protein coding	Chromosome X open reading frame 57
MIR590	2.39	MirNA	MicrorNA 590
RP11-728K20.2	2.39	LincrNA	NA
FMO5	2.39	Protein coding	Flavin containing monooxygenase 5
RP5-994D16.9	2.37	Antisense	NA
RP11-20I20.2	2.37	Antisense	NA
LPAR6	2.37	Protein coding	Lysophosphatidic acid receptor 6
RP11-378J18.9	2.37	LincrNA	NA
RP1-167A14.2	2.37	Antisense	NA
KCNRG	2.37	Protein coding	Potassium channel regulator
RP11-294J22.7	2.37	Tec	NA
CTD-2349P21.10	2.37	Sense intronic	NA
AC093690.1	2.37	Antisense	NA
RP4-669P10.20	2.37	LincrNA	NA
SCML2P2	2.37	Processed pseudogene	SCML2 pseudogene 2
AC106801.1	2.37	Antisense	NA
RP11-893F2.5	2.37	LincrNA	NA
RP1-12G14.9	2.37	Antisense	NA
RP11-83B20.3	2.37	Tec	NA
AC009237.11	2.37	Processed pseudogene	NA
NPTN-IT1	2.37	Sense intronic	NPTN intronic transcript 1
UBE2Q2P1	2.36	Transcribed unprocessed pseudogene	Ubiquitin conjugating enzyme E2Q family member 2 pseudogene 1
CH17-260O16.1	2.36	Unprocessed pseudogene	NA
PLEKHM3	2.35	Protein coding	Pleckstrin homology domain containing M3
TBX20	2.35	Protein coding	T-box 20
RP11-266L9.5	2.33	LincrNA	NA
AMZ1	2.33	Protein coding	Archaeolysin family metallopeptidase 1
ZNF638-IT1	2.33	Processed transcript	ZNF638 intronic transcript 1
RP5-1033H22.2	2.31	Antisense	NA
RP11-73M18.6	2.31	Sense intronic	NA
ZMAT1	2.31	Protein coding	Zinc finger matrin-type 1
RP11-504P24.9	2.31	LincrNA	NA
HSPD1P11	2.30	Processed pseudogene	Heat shock protein family D (Hsp60) member 1 pseudogene 11
KLHL11	2.30	Protein coding	Kelch like family member 11
AC093110.3	2.29	Antisense	NA
RP11-834C11.4	2.29	LincrNA	NA
MIR4645	2.28	MirNA	MicrorNA 4645
AC000120.7	2.28	Sense overlapping	NA
C1QL3	2.28	Protein coding	Complement component 1 q subcomponent-like 3
ANKRD31	2.28	Protein coding	Ankyrin repeat domain 31
ZNF699	2.27	Protein coding	Zinc finger protein 699
ZFP69B	2.27	Protein coding	ZFP69 zinc finger protein B
SNORD17	2.26	SnorNA	Small nucleolar RNA C/D box 17

Table SII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full gene name
RNA5SP82	2.25	RrNA	RNA 5S ribosomal pseudogene 82
PHF5CP	2.25	Processed pseudogene	PHD finger protein 5C pseudogene
ZDHHC20-IT1	2.25	Sense intronic	ZDHHC20 intronic transcript 1
IL1RN	2.25	Protein coding	Interleukin 1 receptor antagonist
MIR5195	2.25	MirNA	Microrna 5195
EEF1A1P4	2.25	Processed pseudogene	Eukaryotic translation elongation factor 1 $\alpha$ 1 pseudogene 4
TRBV7-3	2.25	TR V gene	T cell receptor $\beta$ variable 7-3
DOCK9-AS1	2.25	Antisense	DOCK9 antisense RNA 1
RP11-317B17.4	2.25	Processed pseudogene	NA
ANGPTL8	2.25	Protein coding	Angiopoietin like 8
CSF1R	2.25	Protein coding	Colony stimulating factor 1 receptor
RNU6ATAC24P	2.25	SnrNA	RNA u6atac small nuclear 24 pseudogene
RP11-447D11.3	2.25	Tec	NA
ZSCAN23	2.25	Protein coding	Zinc finger and SCAN domain containing 23
RP11-61F12.1	2.25	Antisense	NA
C3orf22	2.25	Protein coding	Chromosome 3 open reading frame 22
RP11-366L5.1	2.25	Antisense	NA
HMGB1P14	2.22	Processed pseudogene	High mobility group box 1 pseudogene 14
APOBEC2	2.22	Protein coding	Apolipoprotein B mRNA editing enzyme catalytic polypeptide-like 2
LINC01293	2.21	LincrNA	Long intergenic non-protein coding RNA 1293
RP3-355L5.4	2.21	Antisense	NA
RP11-308B5.2	2.20	LincrNA	NA
CRAT40	2.20	LincrNA	Cervical cancer-associated transcript 40
RP11-797H7.1	2.20	Processed pseudogene	NA
PLCXD2	2.20	Protein coding	Phosphatidylinositol-specific phospholipase C X domain containing 2
PALM2	2.20	Protein coding	Paralemmin 2
RP11-709A23.1	2.18	LincrNA	NA
NFAT5	2.17	Protein coding	Nuclear factor of activated T-cells 5 tonicity-responsive
EFCAB13	2.17	Protein coding	EF-hand calcium binding domain 13
LL0XNC01-237H1.2	2.16	LincrNA	NA
RP1-80N2.4	2.16	Tec	NA
TTN	2.16	Protein coding	Titin
RP11-66B24.9	2.15	Antisense	NA
PFN1P2	2.15	Transcribed processed pseudogene	Profilin 1 pseudogene 2
MIR646HG	2.14	LincrNA	MIR646 host gene
RP3-467L1.4	2.14	Antisense	NA
ADORA2A-AS1	2.13	Antisense	ADORA2A antisense RNA 1
PDZK1	2.13	Protein coding	PDZ domain containing 1
RP11-696N14.1	2.13	Antisense	NA
RP11-47G11.2	2.13	Processed pseudogene	NA
XXbac-BPG252P9.10	2.13	Antisense	NA
MED12L	2.13	Protein coding	Mediator complex subunit 12 like
SHPRH	2.12	Protein coding	SNF2 histone linker PHD RING helicase E3 ubiquitin protein ligase
NEB	2.11	Protein coding	Nebulin
LNP1	2.11	Protein coding	Leukemia NUP98 fusion partner 1
RP11-155L15.1	2.11	LincrNA	NA
TAGLN2P1	2.09	Processed pseudogene	Transgelin 2 pseudogene 1
RP11-177H13.2	2.08	Processed transcript	NA
RP11-159G9.5	2.07	LincrNA	NA
AC012531.25	2.07	LincrNA	NA
FAM169A	2.07	Protein coding	Family with sequence similarity 169 member A

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
RP11-11N7.5	2.07	Protein coding	NA
RP3-382I10.7	2.07	Protein coding	UPF0704 protein c6orf165
RP11-258C19.4	2.06	Processed pseudogene	NA
RP11-709A23.2	2.06	Unprocessed pseudogene	NA
RP5-872K7.7	2.06	Antisense	NA
RP11-545D19.1	2.05	LincRNA	NA
RP11-933H2.4	2.05	Processed transcript	NA
FP236383.5	2.05	MirNA	NA
WNT2B	2.05	Protein coding	Wingless-type MMTV integration site family member 2B
GOLGA6A	2.05	Protein coding	Golgin A6 family member A
SSBP3-AS1	2.03	Antisense	SSBP3 antisense RNA 1
POM121B	2.03	Unprocessed pseudogene	POM121 transmembrane nucleoporin B (pseudogene)
RP11-214K3.23	2.03	Sense intronic	NA
RP11-96D1.3	2.03	Sense intronic	NA
RP11-163E9.2	2.03	Transcribed unprocessed pseudogene	NA
C1orf168	2.03	Protein coding	Chromosome 1 open reading frame 168
Metazoa SRP	2.03	Misc RNA	Metazoan sigNAl recognition particle RNA
LINC01057	2.03	Transcribed processed pseudogene	Long intergenic non-protein coding RNA 1057
IPMKP1	2.03	Processed pseudogene	Inositol polyphosphate multikiNAse pseudogene 1
CTC-366B18.4	2.03	LincRNA	NA
ANKRD36C	2.03	Protein coding	Ankyrin repeat domain 36C
CTD-2231E14.8	2.03	Antisense	NA
LSAMP	2.03	Protein coding	Limbic system-associated membrane protein
SPRY4-IT1	2.03	LincRNA	SPRY4 intronic transcript 1
SCHIP1	2.03	Protein coding	Schwannomin interacting protein 1
DMXL2	2.02	Protein coding	Dmx-like 2
FLG	2.02	Protein coding	Filaggrin
CTB-31O20.8	2.01	Antisense	NA
RP5-894A10.6	2.00	Sense intronic	NA
PFN1P3	2.00	Processed pseudogene	Profilin 1 pseudogene 3
RP11-114H24.2	1.99	Transcribed unprocessed pseudogene	NA
AC005104.3	1.99	Antisense	NA
RP11-563J2.3	1.99	LincRNA	NA
CTD-2195B23.3	1.99	Antisense	NA
RP4-555D20.1	1.98	Tec	NA
AGGF1P2	1.98	Processed pseudogene	Angiogenic factor with G-patch and FHA domains 1 pseudogene 2
MGAM2	1.98	Protein coding	Maltase-glucoamylase 2 (putative)
SUCLG2-AS1	1.97	LincRNA	SUCLG2 antisense RNA 1 (head to head)
RP11-262H14.5	1.96	Processed pseudogene	NA
NDUFB8	1.96	Protein coding	NADH:ubiquinone oxidoreductase subunit B8
CTD-2260A17.1	1.96	Antisense	NA
AC112721.2	1.96	LincRNA	NA
Y RNA	1.96	Misc RNA	Y rRNA
MFAP3	1.96	Protein coding	Microfibrillar associated protein 3
AC005592.3	1.96	LincRNA	NA
ANKRD20A10P	1.95	Processed pseudogene	Ankyrin repeat domain 20 family member A10 pseudogene
MEGF10	1.95	Protein coding	Multiple EGF-like-domains 10
LINC01018	1.95	LincRNA	Long intergenic non-protein coding RNA 1018
FAM160A1	1.94	Protein coding	Family with sequence similarity 160 member A1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
RP11-288C18.1	1.94	Tec	NA
RP11-1277A3.2	1.93	Transcribed unprocessed pseudogene	NA
RP4-613B23.1	1.93	Antisense	NA
NRIP1	1.93	Protein coding	Nuclear receptor interacting protein 1
RP11-357H14.16	1.93	Sense intronic	NA
AC000123.2	1.93	Tec	NA
MRPS31P5	1.93	Transcribed unprocessed pseudogene	Mitochondrial ribosomal protein S31 pseudogene 5
RP11-697B24.1	1.92	LincRNA	NA
RFX3-AS1	1.92	LincRNA	RFX3 antisense RNA 1
NBEA	1.91	Protein coding	Neurobeachin
AC073046.25	1.91	LincRNA	NA
RP11-400L8.2	1.91	Antisense	NA
LRIG3	1.91	Protein coding	Leucine-rich repeats and immunoglobulin-like domains 3
KRT36	1.91	Protein coding	Keratin 36 type I
RP1-43E13.2	1.90	Antisense	NA
RP11-415J8.5	1.90	Antisense	NA
MCTS2P	1.90	Processed pseudogene	MaligNAnt T-cell amplified sequence 2 pseudogene
RP11-274B21.14	1.89	Processed transcript	NA
RNF169	1.89	Protein coding	Ring finger protein 169
ANTXR2	1.88	Protein coding	Anthrax toxin receptor 2
TET2	1.88	Protein coding	Tet methylcytosine dioxygeNase 2
RP11-75C10.9	1.88	Antisense	NA
TET1	1.88	Protein coding	Tet methylcytosine dioxygeNase 1
IQCH	1.88	Protein coding	IQ motif containing H
SCUBE3	1.86	Protein coding	SigNAl peptide CUB domain EGF-like 3
POMK	1.86	Protein coding	Protein-O-mannose kiNAse
RP5-1180D12.1	1.86	Tec	NA
USP34	1.85	Protein coding	Ubiquitin specific peptidase 34
TMPPE	1.84	Protein coding	Transmembrane protein with metallophosphoesterase domain
SPOCK1	1.84	Protein coding	Sparc/osteonectin cwcv and kazal-like domains proteoglycan (testican) 1
ACTG1P10	1.84	Processed pseudogene	Actin γ 1 pseudogene 10
GPRASP1	1.84	Protein coding	G protein-coupled receptor associated sorting protein 1
CTD-2600H12.2	1.83	Tec	NA
AIM1	1.83	Protein coding	Absent in melanoma 1
RP11-274B21.13	1.83	Transcribed unprocessed pseudogene	NA
LINC00630	1.83	LincRNA	Long intergenic non-protein coding RNA 630
CHRN2	1.83	Protein coding	Cholinergic receptor nicotinic β 2
PRR4	1.83	Protein coding	Proline rich 4 (lacrimal)
LRRC37A9P	1.83	Processed pseudogene	Leucine-rich repeat containing 37 member A9 pseudogene
LRRTM2	1.83	Protein coding	Leucine rich repeat transmembrane neuroNAl 2
KIAA0825	1.83	Protein coding	Kiaa0825
CTC-425O23.2	1.83	Sense intronic	NA
IGF2BP2-AS1	1.82	Antisense	IGF2BP2 antisense RNA 1
KIAA2012	1.82	Protein coding	Kiaa2012
TAS2R31	1.82	Protein coding	Taste 2 receptor member 31
RP11-431K24.1	1.82	LincRNA	NA
IGSF6	1.81	Protein coding	Immunoglobulin superfamily member 6
CERS6	1.79	Protein coding	Ceramide synthase 6
RAB11FIP1P1	1.79	Processed pseudogene	RAB11 family interacting protein 1 (class I) pseudogene 1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
UBE4A	1.79	Protein coding	UbiquitiNAtion factor E4A
ZNF772	1.78	Protein coding	Zinc finger protein 772
EBLN2	1.78	Protein coding	Endogenous borNAvirus-like nucleoprotein 2
RP11-845M18.6	1.78	Antisense	NA
RP1-253P7.4	1.78	Antisense	NA
REV3L	1.77	Protein coding	REV3 like DNA directed polymerase zeta catalytic subunit
BMS1P4	1.77	Transcribed unprocessed pseudogene	BMS1 ribosome biogenesis factor pseudogene 4
RP4-555L14.4	1.77	Antisense	NA
RAPH1	1.77	Protein coding	Ras association (ralgds/AF-6) and pleckstrin homology domains 1
BDP1	1.76	Protein coding	B double prime 1 subunit of RNA polymerase III transcription initiation factor IIIB
RP11-803D5.4	1.76	LincRNA	NA
ZNF671	1.76	Protein coding	Zinc finger protein 671
LINC00861	1.76	LincRNA	Long intergenic non-protein coding RNA 861
RP11-111M22.5	1.75	LincRNA	NA
CTD-2047H16.3	1.75	Tec	NA
RP3-405J10.3	1.75	Sense intronic	NA
SIDT1	1.75	Protein coding	SID1 transmembrane family member 1
RP11-624M8.1	1.75	Antisense	NA
AC007038.7	1.75	Antisense	NA
DSCAM	1.75	Protein coding	Down syndrome cell adhesion molecule
PAPPA	1.75	Protein coding	Pregnancy-associated plasma protein A 1 pappalysin
NONOP2	1.74	Processed pseudogene	Non-POU domain containing octamer-binding pseudogene 2
ZNF724P	1.74	Protein coding	Zinc finger protein 724 pseudogene
RP11-314N13.3	1.74	Antisense	NA
AL591893.1	1.74	Antisense	NA
STARD4-AS1	1.74	Antisense	STARD4 antisense RNA 1
COL6A4P1	1.73	Unitary pseudogene	Collagen type VI $\alpha$ 4 pseudogene 1
RP11-423P10.2	1.73	Sense intronic	NA
EFCAB6	1.73	Protein coding	EF-hand calcium binding domain 6
TRIM58	1.73	Protein coding	Tripartite motif containing 58
N4BP2	1.73	Protein coding	NEDD4 binding protein 2
KIAA1109	1.72	Protein coding	Kiaa1109
CEP295	1.72	Protein coding	Centrosomal protein 295kda
bP-2171C21.3	1.72	LincRNA	NA
RP11-458F8.1	1.71	Unprocessed pseudogene	NA
RP11-117L5.1	1.71	Tec	NA
RP11-794G24.1	1.71	LincRNA	NA
GM140	1.71	LincRNA	Uncharacterized LOC100287948
CTD-3234P18.6	1.71	LincRNA	NA
ZNF441	1.71	Protein coding	Zinc finger protein 441
KRT35	1.70	Protein coding	Keratin 35 type I
FNBPI1P1	1.70	Processed pseudogene	Formin binding protein 1 pseudogene 1
AC024937.6	1.70	Processed pseudogene	NA
GPM6B	1.70	Protein coding	Glycoprotein M6B
USP46-AS1	1.70	LincRNA	USP46 antisense RNA 1
ACAP2-IT1	1.70	Sense intronic	ACAP2 intronic transcript 1
UBE2Q2P2	1.69	Transcribed unprocessed pseudogene	Ubiquitin conjugating enzyme E2Q family member 2 pseudogene 2
GPLD1	1.69	Protein coding	Glycosylphosphatidylinositol specific phospholipase D1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
RP11-96D1.8	1.68	Tec	NA
PPARGC1A	1.68	Protein coding	Peroxisome proliferator-activated receptor $\gamma$ coactivator 1 $\alpha$
HIST4H4	1.68	Protein coding	Histone cluster 4 H4
PTRH1	1.68	Protein coding	Peptidyl-trNA hydrolase 1 homolog
RP11-864I4.3	1.68	Antisense	NA
MTCYBP21	1.68	Processed pseudogene	MT-CYB pseudogene 21
BTBD8	1.68	Protein coding	BTB (POZ) domain containing 8
RP11-504G3.4	1.68	Transcribed processed pseudogene	NA
RP11-484D2.4	1.68	Sense overlapping	NA
ETF1P2	1.68	Processed pseudogene	Eukaryotic translation termiNAtion factor 1 pseudogene 2
RP11-241F15.1	1.68	Unprocessed pseudogene	NA
ERVH48-1	1.68	LincRNA	Endogenous retrovirus group 48 member 1
RP11-331F9.3	1.68	Antisense	NA
DLEU2L	1.68	Sense intronic	Deleted in lymphocytic leukemia 2-like
LINC00954	1.67	LincRNA	Long intergenic non-protein coding RNA 954
CEP350	1.66	Protein coding	Centrosomal protein 350kda
TAOK1	1.66	Protein coding	TAO kiNAse 1
PCLO	1.65	Protein coding	Piccolo presyNAptic cytomatrix protein
TRIM71	1.65	Protein coding	Tripartite motif containing 71 E3 ubiquitin protein ligase
DACH1	1.64	Protein coding	Dachshund family transcription factor 1
CFAP70	1.64	Protein coding	Cilia and flagella associated protein 70
MDN1	1.64	Protein coding	Midasin AAA atpase 1
PITRM1-AS1	1.64	Antisense	PITRM1 antisense RNA 1
WDR17	1.64	Protein coding	WD repeat domain 17
MANEA-AS1	1.64	Antisense	MANEA antisense RNA 1 (head to head)
RP11-798G7.8	1.64	LincRNA	NA
EML5	1.63	Protein coding	Echinoderm microtubule associated protein like 5
KRT41P	1.63	Unprocessed pseudogene	Keratin 41 pseudogene
WFDC13	1.63	Protein coding	WAP four-disulfide core domain 13
C10orf12	1.63	Protein coding	Chromosome 10 open reading frame 12
HRNR	1.62	Protein coding	Hornerin
RP11-175P13.3	1.62	Transcribed unprocessed pseudogene	NA
RPSAP52	1.61	Transcribed processed pseudogene	Ribosomal protein SA pseudogene 52
RP11-649A18.4	1.61	Sense intronic	NA
AC098614.2	1.61	Transcribed processed pseudogene	NA
NOTCH2NL	1.61	Protein coding	Notch 2 N-termiNAL like
ITGB5-AS1	1.61	Antisense	ITGB5 antisense RNA 1
RP11-401P9.1	1.60	Antisense	NA
BRWD3	1.60	Protein coding	Bromodomain and WD repeat domain containing 3
RORA	1.60	Protein coding	RAR-related orphan receptor A
RORA-AS1	1.59	Antisense	RORA antisense RNA 1
JMJD7	1.59	Protein coding	Jumonji domain containing 7
RP11-180M15.7	1.59	Sense intronic	NA
SMG1	1.59	Protein coding	SMG1 phosphatidylinositol 3-kiNAse-related kiNAse
FLNB-AS1	1.59	Antisense	FLNB antisense RNA 1
POLK	1.59	Protein coding	Polymerase (DNA directed) kappa
ANKRD36	1.58	Protein coding	Ankyrin repeat domain 36
CCDC27	1.58	Protein coding	Coiled-coil domain containing 27

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
FAM86B2	1.58	Protein coding	Family with sequence similarity 86 member B2
DYNC2H1	1.58	Protein coding	Dynein cytoplasmic 2 heavy chain 1
PLA2R1	1.57	Protein coding	Phospholipase A2 receptor 1
RP11-242D8.3	1.57	Processed pseudogene	NA
KIRREL3	1.57	Protein coding	Kin of IRRE like 3 (Drosophila)
RP11-561C5.4	1.57	Transcribed unprocessed pseudogene	NA
AP001429.1	1.57	Sense intronic	NA
RP4-584D14.6	1.57	Antisense	NA
RP11-927P21.1	1.57	Antisense	NA
TSPAN11	1.57	Protein coding	Tetraspanin 11
KCNQ1OT1	1.57	Antisense	KCNQ1 opposite strand/antisense transcript 1 (non-protein coding)
RP11-203B9.4	1.56	Antisense	NA
ZDBF2	1.56	Protein coding	Zinc finger DBF-type containing 2
LL0XNC01-116E7.2	1.56	Antisense	NA
1-Mar	1.56	Protein coding	Membrane associated ring-CH-type finger 1
MYCBP2	1.56	Protein coding	MYC binding protein 2 E3 ubiquitin protein ligase
ADGRV1	1.56	Protein coding	Adhesion G protein-coupled receptor V1
RP11-485B17.5	1.55	Unprocessed pseudogene	NA
LINC00624	1.55	Antisense	Long intergenic non-protein coding RNA 624
RPS11P5	1.55	Processed pseudogene	Ribosomal protein S11 pseudogene 5
MID1IP1-AS1	1.55	Antisense	MID1IP1 antisense RNA 1
MICALCL	1.55	Protein coding	MICAL C-termiNAL like
PHIP	1.55	Protein coding	Pleckstrin homology domain interacting protein
FGF1	1.55	Protein coding	Fibroblast growth factor 1 (acidic)
SAMD9	1.54	Protein coding	Sterile $\alpha$ motif domain containing 9
ZNF805	1.54	Protein coding	Zinc finger protein 805
RP11-434E6.4	1.54	LncRNA	NA
RP11-573G6.4	1.54	Tec	NA
DGKH	1.53	Protein coding	Diacylglycerol kiNAse eta
ANKRD61	1.53	Protein coding	Ankyrin repeat domain 61
CTD-3224K15.2	1.53	LncRNA	NA
VPS13B	1.53	Protein coding	Vacuolar protein sorting 13 homolog B (yeast)
ZNF610	1.52	Protein coding	Zinc finger protein 610
GS1-124K5.3	1.52	LncRNA	NA
MICE	1.52	Transcribed unprocessed pseudogene	MHC class I polypeptide-related sequence E (pseudogene)
CTD-3099C6.9	1.52	Sense intronic	NA
RP3-368A4.5	1.51	Sense intronic	NA
CTC-281F24.5	1.51	Protein coding	NA
ITPR2	1.51	Protein coding	Inositol 145-trisphosphate receptor type 2
NR2C2	1.51	Protein coding	Nuclear receptor subfamily 2 group C member 2
HIPK2	1.51	Protein coding	Homeodomain interacting protein kiNAse 2
TEX15	1.51	Protein coding	Testis expressed 15
PSD3	1.51	Protein coding	Pleckstrin and Sec7 domain containing 3
CEP97	1.50	Protein coding	Centrosomal protein 97kda
VPS13A	1.49	Protein coding	Vacuolar protein sorting 13 homolog A (S. Cerevisiae)
CHD9	1.49	Protein coding	Chromodomain helicase DNA binding protein 9
NCR3LG1	1.49	Protein coding	NAtural killer cell cytotoxicity receptor 3 ligand 1
ZNF770	1.49	Protein coding	Zinc finger protein 770
HAUST7	1.49	Protein coding	HAUS augmin like complex subunit 7
RP11-141C7.5	1.49	Unprocessed pseudogene	NA
RALGAPA1	1.49	Protein coding	Ral gtpase activating protein $\alpha$ subunit 1 (catalytic)

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
RP11-609N14.4	1.49	Tec	NA
CTD-2516F10.2	1.49	Antisense	NA
FUT10	1.48	Protein coding	Fucosyltransferase 10 ( $\alpha$ (13) fucosyltransferase)
TBC1D32	1.48	Protein coding	TBC1 domain family member 32
DFNA5	1.48	Protein coding	Deafness autosomal domiNAnt 5
RP11-425M5.7	1.48	Sense intronic	NA
RP11-286N22.16	1.48	Tec	NA
AC116366.5	1.48	Antisense	NA
APC	1.47	Protein coding	Adenomatous polyposis coli
BNC2	1.47	Protein coding	Basonuclin 2
DMXL1	1.47	Protein coding	Dmx-like 1
CTB-174D11.1	1.47	Antisense	NA
BBX	1.46	Protein coding	Bobby sox homolog (Drosophila)
CNTLN	1.46	Protein coding	Centlein
LINC00310	1.46	LincRNA	Long intergenic non-protein coding RNA 310
MYO9A	1.46	Protein coding	Myosin IXA
VPS13C	1.46	Protein coding	Vacuolar protein sorting 13 homolog C ( <i>S. Cerevisiae</i> )
SPATA6	1.46	Protein coding	Spermatogenesis associated 6
LINC01237	1.45	Processed transcript	Long intergenic non-protein coding RNA 1237
DIP2B	1.45	Protein coding	Disco interacting protein 2 homolog B
ONECUT2	1.45	Protein coding	One cut homeobox 2
DENND4C	1.45	Protein coding	DENN/MADD domain containing 4C
NFATC3	1.44	Protein coding	Nuclear factor of activated T-cells cytoplasmic calcineurin-dependent 3
PDE5A	1.44	Protein coding	Phosphodiesterase 5A
JMJD1C	1.44	Protein coding	Jumonji domain containing 1C
ZNF852	1.43	Protein coding	Zinc finger protein 852
PBLD	1.43	Protein coding	PheNAzine biosynthesis-like protein domain containing
DOPEY1	1.43	Protein coding	Dopey family member 1
ENTPD7	1.43	Protein coding	Ectonucleoside triphosphate diphosphohydrolase 7
AP000350.5	1.43	LincRNA	NA
CHST3	1.43	Protein coding	Carbohydrate (chondroitin 6) sulfotransferase 3
MKL2	1.43	Protein coding	MKL/myocardin-like 2
FAT1	1.43	Protein coding	FAT atypical cadherin 1
RN7SL381P	1.43	Misc RNA	RNA 7SL cytoplasmic 381 pseudogene
TMC3-AS1	1.43	Antisense	TMC3 antisense RNA 1
AFF4	1.43	Protein coding	AF4/FMR2 family member 4
FAM228B	1.42	Protein coding	Family with sequence similarity 228 member B
FREM2	1.42	Protein coding	FRAS1 related extracellular matrix protein 2
RICTOR	1.42	Protein coding	RPTOR independent companion of MTOR complex 2
RBM12B	1.42	Protein coding	RNA binding motif protein 12B
ALG10	1.42	Protein coding	ALG10 $\alpha$ -1,2-glucosyltransferase
TSTD2	1.41	Protein coding	Thiosulfate sulfurtransferase (rhodanese)-like domain containing 2
PHC1P1	1.41	Processed pseudogene	Polyhomeotic homolog 1 (Drosophila) pseudogene 1
ATRX	1.41	Protein coding	A thalassemia/mental retardation syndrome X-linked
KMT2A	1.41	Protein coding	Lysine (K)-specific methyltransferase 2A
ZNF714	1.41	Protein coding	Zinc finger protein 714
RP11-351I24.1	1.41	Antisense	NA
RGS17	1.40	Protein coding	Regulator of G-protein sigNAling 17
KLHL15	1.40	Protein coding	Kelch like family member 15
FTX	1.40	LincRNA	FTX transcript XIST regulator (non-protein coding)

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
ZKSCAN8	1.40	Protein coding	Zinc finger with KRAB and SCAN domains 8
RP11-355B11.2	1.40	Antisense	NA
HELZ	1.40	Protein coding	Helicase with zinc finger
MKLN1	1.39	Protein coding	Muskelin 1
RP4-530I15.9	1.39	Antisense	NA
HNRNPU-AS1	1.39	Antisense	NA
SCN8A	1.39	Protein coding	Sodium channel voltage gated type VIII $\alpha$ subunit
RP11-113K21.6	1.39	Tec	NA
RPS5P2	1.39	Processed pseudogene	Ribosomal protein S5 pseudogene 2
LRRKIP1P1	1.39	Processed pseudogene	Leucine rich repeat (in FLII) interacting protein 1 pseudogene 1
UTRN	1.39	Protein coding	Utrophin
ZNF429	1.38	Protein coding	Zinc finger protein 429
NCOA2	1.38	Protein coding	Nuclear receptor coactivator 2
RP4-681N20.5	1.38	Antisense	NA
ATAD2B	1.38	Protein coding	Atpase family AAA domain containing 2B
KAT6A	1.38	Protein coding	K(lysine) acetyltransferase 6A
C1orf132	1.38	LncrNA	Chromosome 1 open reading frame 132
ASXL2	1.38	Protein coding	AdditioNAL sex combs like 2 transcriptioNAL regulator
FMN1	1.38	Protein coding	Formin 1
PVRL3	1.37	Protein coding	Poliovirus receptor-related 3
XRN1	1.37	Protein coding	5'-3' exoribonuclease 1
SMC4	1.37	Protein coding	Structural mainteNANCE of chromosomes 4
PHC3	1.37	Protein coding	Polyhomeotic homolog 3 (Drosophila)
EHF	1.37	Protein coding	Ets homologous factor
SLC7A2	1.36	Protein coding	Solute carrier family 7 (cationic amino acid transporter y+ system) member 2
FNIP2	1.36	Protein coding	Folliculin interacting protein 2
MMP1	1.36	Protein coding	Matrix metallopeptidase 1
STX17	1.36	Protein coding	Syntaxin 17
EML6	1.36	Protein coding	Echinoderm microtubule associated protein like 6
PDZD2	1.36	Protein coding	PDZ domain containing 2
MIR621	1.35	MirNA	Microrna 621
DLEU1	1.35	Protein coding	Deleted in lymphocytic leukemia 1 (non-protein coding)
SETBP1	1.35	Protein coding	SET binding protein 1
FOXN3	1.35	Protein coding	Forkhead box N3
LRP6	1.35	Protein coding	LDL receptor related protein 6
NOTCH2	1.35	Protein coding	Notch 2
bP-2171C21.5	1.35	Processed pseudogene	NA
PARD3B	1.35	Protein coding	Par-3 family cell polarity regulator $\beta$
TTBK2	1.34	Protein coding	Tau tubulin kiNase 2
BAZ2B	1.34	Protein coding	Bromodomain adjacent to zinc finger domain 2B
ITPR1	1.34	Protein coding	Inositol 145-trisphosphate receptor type 1
AC012065.4	1.34	LncrNA	NA
RAG1	1.34	Protein coding	RecombiNAtion activating gene 1
ZNF678	1.34	Protein coding	Zinc finger protein 678
NDUFV2	1.34	Protein coding	NADH:ubiquinone oxidoreductase core subunit V2
RP11-66B24.4	1.33	Antisense	NA
MRPL46	1.33	Protein coding	Mitochondrial ribosomal protein L46
AC074286.1	1.33	Sense overlapping	NA
UBE2V1	1.33	Protein coding	Ubiquitin conjugating enzyme E2 variant 1
RP13-554M15.2	1.33	Tec	NA
HIST2H2BF	1.33	Protein coding	Histone cluster 2 h2bf
ZNF891	1.33	Protein coding	Zinc finger protein 891
BIRC6	1.33	Protein coding	Baculoviral IAP repeat containing 6

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
PTAR1	1.33	Protein coding	Protein prenyltransferase $\alpha$ subunit repeat containing 1
PRRC2C	1.32	Protein coding	Proline-rich coiled-coil 2C
ZBTB37	1.32	Protein coding	Zinc finger and BTB domain containing 37
ZNF81	1.32	Protein coding	Zinc finger protein 81
RP11-400F19.18	1.32	Sense intronic	NA
ANKRD36B	1.32	Protein coding	Ankyrin repeat domain 36B
TEAD1	1.32	Protein coding	TEA domain family member 1 (SV40 transcriptional enhancer factor)
MIR3648-1	1.32	MirNA	Microrna 3648-1
LPP	1.32	Protein coding	LIM domain containing preferred translocation partner in lipoma
ASAP2	1.32	Protein coding	Arfgap with SH3 domain ankyrin repeat and PH domain 2
SLC5A3	1.32	Protein coding	Solute carrier family 5 (sodium/myo-inositol cotransporter) member 3
ZBTB41	1.31	Protein coding	Zinc finger and BTB domain containing 41
UBR5	1.31	Protein coding	Ubiquitin protein ligase E3 component n-recognition 5
GOLGA6L5P	1.31	Transcribed unprocessed pseudogene	Golgin A6 family-like 5 pseudogene
COL4A3	1.31	Protein coding	Collagen type IV $\alpha$ 3 (Goodpasture antigen)
CTD-3076O17.2	1.31	Antisense	NA
HOXD-AS2	1.31	Antisense	HOXD cluster antisense RNA 2
SPRY3	1.31	Protein coding	Sprouty RTK signaling antagonist 3
RNU2-32P	1.31	SnRNA	RNA U2 small nuclear 32 pseudogene
ANKRD18EP	1.31	Processed pseudogene	Ankyrin repeat domain 18E pseudogene
ZNF483	1.31	Protein coding	Zinc finger protein 483
CEP170	1.31	Protein coding	Centrosomal protein 170kDa
BPTF	1.31	Protein coding	Bromodomain PHD finger transcription factor
ALMS1	1.31	Protein coding	ALMS1 centrosome and basal body associated protein
LAMA5-AS1	1.31	Antisense	LAMA5 antisense RNA 1
CDKL2	1.31	Protein coding	Cyclin-dependent kinase-like 2 (CDC2-related kinase)
bP-2189O9.2	1.31	Unprocessed pseudogene	NA
NF1	1.30	Protein coding	Neurofibromin 1
KIAA1328	1.30	Protein coding	Kiaa1328
SP4	1.30	Protein coding	Sp4 transcription factor
TET3	1.30	Protein coding	Tet methylcytosine dioxygenase 3
FRAS1	1.30	Protein coding	Fraser extracellular matrix complex subunit 1
AKAP11	1.30	Protein coding	A-kinase anchoring protein 11
KLHL14	1.30	Protein coding	Kelch like family member 14
RP11-21B23.2	1.30	LncRNA	NA
PIK3C2A	1.29	Protein coding	Phosphatidylinositol-4-phosphate 3-kinase catalytic subunit type 2 $\alpha$
ANKRD26	1.29	Protein coding	Ankyrin repeat domain 26
PPP1R9A	1.29	Protein coding	Protein phosphatase 1 regulatory subunit 9A
HERC2P3	1.29	Transcribed unprocessed pseudogene	Hect domain and RLD 2 pseudogene 3
AC006116.20	1.29	Processed transcript	NA
PGAP1	1.29	Protein coding	Post-GPI attachment to proteins 1
MATR3	1.29	Protein coding	Matrin 3
PLAG1	1.29	Protein coding	PLAG1 zinc finger
ZNF708	1.29	Protein coding	Zinc finger protein 708
RP11-705C15.3	1.29	Sense intronic	NA

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
CARF	1.29	Protein coding	Calcium responsive transcription factor
RP11-448G15.3	1.29	Sense overlapping	NA
E2F7	1.29	Protein coding	E2F transcription factor 7
ATP7A	1.28	Protein coding	Atpase Cu++ transporting $\alpha$ polypeptide
GPATCH2L	1.28	Protein coding	G-patch domain containing 2 like
KMT2C	1.28	Protein coding	Lysine (K)-specific methyltransferase 2C
WNK1	1.28	Protein coding	WNK lysine deficient protein kiNase 1
DYNC1LI2	1.28	Protein coding	Dynein cytoplasmic 1 light intermediate chain 2
ATP10D	1.28	Protein coding	Atpase class V type 10D
IGSF9B	1.28	Protein coding	Immunoglobulin superfamily member 9B
KIAA1147	1.28	Protein coding	Kiaa1147
TSSK4	1.28	Protein coding	Testis-specific serine kiNase 4
ZNF292	1.28	Protein coding	Zinc finger protein 292
FGD6	1.28	Protein coding	FYVE rhogef and PH domain containing 6
SORL1	1.28	Protein coding	Sortilin-related receptor L(DLR class) A repeats containing
KAT6B	1.28	Protein coding	K(lysine) acetyltransferase 6B
CD109	1.28	Protein coding	CD109 molecule
UBN2	1.27	Protein coding	Ubinuclein 2
CDKL5	1.27	Protein coding	Cyclin-dependent kiNase-like 5
KANTR	1.27	LncrNA	KDM5C adjacent non-coding transcript
ARHGAP25	1.27	Protein coding	Rho gtpase activating protein 25
C9orf84	1.27	Protein coding	Chromosome 9 open reading frame 84
MAP1B	1.27	Protein coding	Microtubule associated protein 1B
FRYL	1.27	Protein coding	FRY like transcription coactivator
PRKDC	1.27	Protein coding	Protein kiNase DNA-activated catalytic polypeptide
TCAF1P1	1.27	Unprocessed pseudogene	TRPM8 channel-associated factor 1 pseudogene 1
ARHGAP42	1.26	Protein coding	Rho gtpase activating protein 42
ARFGEF3	1.26	Protein coding	ARFGEF family member 3
ANKRD10-IT1	1.26	Sense intronic	ANKRD10 intronic transcript 1
NEMF	1.26	Protein coding	Nuclear export mediator factor
SAMD15	1.26	Protein coding	Sterile $\alpha$ motif domain containing 15
KITLG	1.26	Protein coding	KIT ligand
PIGF	1.26	Protein coding	Phosphatidylinositol glycan anchor biosynthesis class F
CNOT1	1.26	Protein coding	CCR4-NOT transcription complex subunit 1
HIVEP2	1.26	Protein coding	Human immunodeficiency virus type I enhancer binding protein 2
JAK2	1.26	Protein coding	Janus kiNase 2
TGFB2	1.25	Protein coding	Transforming growth factor $\beta$ 2
CTD-2349P21.3	1.25	Tec	NA
ITGA2	1.25	Protein coding	Integrin subunit $\alpha$ 2
SEL1L	1.25	Protein coding	Sel-1 suppressor of lin-12-like (C. Elegans)
MYSM1	1.25	Protein coding	Myb-like SWIRM and MPN domains 1
BOD1L1	1.24	Protein coding	Biorientation of chromosomes in cell division 1-like 1
ANKRD17	1.24	Protein coding	Ankyrin repeat domain 17
MCM3AP-AS1	1.24	Antisense	MCM3AP antisense RNA 1
STRN	1.24	Protein coding	Striatin
OSBPL8	1.24	Protein coding	Oxysterol binding protein like 8
AHNAK	1.24	Protein coding	AHNAK nucleoprotein
WDFY3	1.24	Protein coding	WD repeat and FYVE domain containing 3
RP11-21K12.2	1.24	Tec	NA
RP11-244O19.1	1.24	Sense overlapping	NA
VLDLR-AS1	1.24	Antisense	VLDLR antisense RNA 1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
SYCP2	1.24	Protein coding	SyNaptosomal complex protein 2
MGA	1.24	Protein coding	MGA MAX dimerization protein
RTTN	1.24	Protein coding	Rotatin
ZFHX3	1.24	Protein coding	Zinc finger homeobox 3
RAB11FIP1	1.24	Protein coding	RAB11 family interacting protein 1 (class I)
TMEM170B	1.23	Protein coding	Transmembrane protein 170B
EPG5	1.23	Protein coding	Ectopic P-granules autophagy protein 5 homolog (C. Elegans)
ARL10	1.23	Protein coding	ADP ribosylation factor like gtpase 10
SERPINA10	1.23	Protein coding	Serpin peptidase inhibitor clade A (α-1 antiproteiNAse antitrypsin) member 10
YPEL2	1.23	Protein coding	Yippee like 2
RP5-875O13.7	1.23	Unprocessed pseudogene	NA
TRPM7	1.23	Protein coding	Transient receptor potential cation channel subfamily M member 7
TNKS	1.23	Protein coding	Tankyrase TRF1-interacting ankyrin-related ADP-ribose polymerase
SACS	1.23	Protein coding	Sacsin molecular chaperone
RP11-64C12.3	1.23	Transcribed processed pseudogene	NA
PIKFYVE	1.23	Protein coding	Phosphoinositide kiNAse FYVE finger containing
AC007191.4	1.23	Tec	NA
RP11-566E18.1	1.22	Tec	NA
WWC2	1.22	Protein coding	WW and C2 domain containing 2
DST	1.22	Protein coding	Dystonin
HERC1	1.22	Protein coding	HECT and RLD domain containing E3 ubiquitin protein ligase family member 1
FANCM	1.22	Protein coding	Fanconi anemia complementation group M
ZNF749	1.22	Protein coding	Zinc finger protein 749
BTAF1	1.22	Protein coding	B-TFIID TATA-box binding protein associated factor 1
MED13	1.22	Protein coding	Mediator complex subunit 13
SESTD1	1.22	Protein coding	SEC14 and spectrin domain containing 1
STOX2	1.22	Protein coding	Storkhead box 2
LCOR	1.22	Protein coding	Ligand dependent nuclear receptor corepressor
MIB1	1.22	Protein coding	Mindbomb E3 ubiquitin protein ligase 1
SYNE2	1.22	Protein coding	Spectrin repeat containing nuclear envelope 2
ZNRD1-AS1	1.22	Antisense	ZNRD1 antisense RNA 1
ARHGEF38	1.22	Protein coding	Rho guanine nucleotide exchange factor 38
FAM208B	1.21	Protein coding	Family with sequence similarity 208 member B
RP11-10N23.2	1.21	Antisense	NA
AGL	1.21	Protein coding	Amylo- $\alpha$ -1 6-glucosidase 4- $\alpha$ -glucanotransferase
UHRF1BP1	1.21	Protein coding	UHRF1 binding protein 1
PUS7L	1.21	Protein coding	Pseudouridylate synthase 7-like
MAP3K1	1.21	Protein coding	Mitogen-activated protein kiNAse kiNAse kiNAse 1 E3 ubiquitin protein ligase
TTC3P1	1.21	Processed pseudogene	Tetratricopeptide repeat domain 3 pseudogene 1
LRRC37A	1.21	Protein coding	Leucine rich repeat containing 37A
RP11-284F21.7	1.21	Antisense	NA
LMLN	1.21	Protein coding	Leishmanolysin-like (metallopeptidase M8 family)
HCFC2	1.21	Protein coding	Host cell factor C2
TBC1D8B	1.20	Protein coding	TBC1 domain family member 8B
RP3-394A18.1	1.20	Antisense	NA
BRCA2	1.20	Protein coding	Breast cancer 2
KRT32	1.20	Protein coding	Keratin 32 type I
GTF2IP12	1.20	Transcribed unprocessed pseudogene	General transcription factor iii pseudogene 12

Table SII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full gene name
ASH1L	1.20	Protein coding	Ash1 (absent small or homeotic)-like (Drosophila)
AASS	1.20	Protein coding	Aminoadipate-semialdehyde synthase
MID2	1.20	Protein coding	Midline 2
CASC5	1.20	Protein coding	Cancer susceptibility candidate 5
VPS13D	1.20	Protein coding	Vacuolar protein sorting 13 homolog D ( <i>S. Cerevisiae</i> )
ARHGAP5	1.20	Protein coding	Rho gtpase activating protein 5
MAN1A2	1.20	Protein coding	Mannosidase $\alpha$ class 1A member 2
DICER1	1.20	Protein coding	Dicer 1 ribonuclease type III
HIPK1	1.20	Protein coding	Homeodomain interacting protein kiNAsE 1
ZNF417	1.20	Protein coding	Zinc finger protein 417
WRN	1.20	Protein coding	Werner syndrome recq helicase-like
RP11-45M22.2	1.19	Tec	NA
FAT2	1.19	Protein coding	FAT atypical cadherin 2
SECISBP2L	1.19	Protein coding	SECIS binding protein 2-like
RNF213	1.19	Protein coding	Ring finger protein 213
DCHS2	1.19	Protein coding	Dachsous cadherin-related 2
RBL2	1.19	Protein coding	Retinoblastoma-like 2
FAM179B	1.19	Protein coding	Family with sequence similarity 179 member B
CHD6	1.19	Protein coding	Chromodomain helicase DNA binding protein 6
MYH16	1.19	Unitary pseudogene	Myosin heavy chain 16 pseudogene
SBF2	1.18	Protein coding	SET binding factor 2
TRIM17	1.18	Protein coding	Tripartite motif containing 17
C5orf42	1.18	Protein coding	Chromosome 5 open reading frame 42
FP671120.5	1.18	MirNA	NA
ZNF518A	1.18	Protein coding	Zinc finger protein 518A
FSD1L	1.18	Protein coding	Fibronectin type III and SPRY domain containing 1-like
RIMS2	1.18	Protein coding	Regulating syNaptic membrane exocytosis 2
RP11-553A21.3	1.18	Antisense	NA
PTPRG	1.18	Protein coding	Protein tyrosine phosphatase receptor type G
OPN3	1.18	Protein coding	Opsin 3
USF3	1.18	Protein coding	Upstream transcription factor family member 3
MED13L	1.18	Protein coding	Mediator complex subunit 13-like
RIF1	1.18	Protein coding	Replication timing regulatory factor 1
ZNF25	1.18	Protein coding	Zinc finger protein 25
ATM	1.18	Protein coding	ATM serine/threonine kiNAsE
OGT	1.18	Protein coding	O-linked N-acetylglucosamine (glcNAc) transferase
PROX1	1.18	Protein coding	Prospero homeobox 1
RP11-110I1.11	1.17	Antisense	NA
KIAA0586	1.17	Protein coding	Kiaa0586
IGF2BP3	1.17	Protein coding	Insulin like growth factor 2 mrNA binding protein 3
PCNX	1.17	Protein coding	Pecanex homolog (Drosophila)
AHNAK2	1.17	Protein coding	AHNAK nucleoprotein 2
HECTD1	1.17	Protein coding	HECT domain containing E3 ubiquitin protein ligase 1
RASA1	1.17	Protein coding	RAS p21 protein activator (gtpase activating protein) 1
UBR1	1.17	Protein coding	Ubiquitin protein ligase E3 component n-recognin 1
NCOR1	1.17	Protein coding	Nuclear receptor corepressor 1
ARHGAP29	1.16	Protein coding	Rho gtpase activating protein 29
CTD-2017D11.1	1.16	LincrNA	NA
CREBRF	1.16	Protein coding	CREB3 regulatory factor
AHI1	1.16	Protein coding	Abelson helper integration site 1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
APAF1	1.16	Protein coding	Apoptotic peptidase activating factor 1
RP11-481C4.2	1.16	Tec	NA
USP53	1.15	Protein coding	Ubiquitin specific peptidase 53
TRAPPC10	1.15	Protein coding	Trafficking protein particle complex 10
DDI2	1.15	Protein coding	DNA damage inducible 1 homolog 2
AC226118.1	1.15	lncRNA	NA
ZNF551	1.15	Protein coding	Zinc finger protein 551
LRBA	1.15	Protein coding	LPS-responsive vesicle trafficking beach and anchor containing
FAM46A	1.15	Protein coding	Family with sequence similarity 46 member A
ZC3H12C	1.15	Protein coding	Zinc finger CCCH-type containing 12C
JMY	1.15	Protein coding	Junction mediating and regulatory protein p53 cofactor
SOS1	1.15	Protein coding	SOS Ras/Rac guanine nucleotide exchange factor 1
ZNF365	1.15	Protein coding	Zinc finger protein 365
MCC	1.15	Protein coding	Mutated in colorectal cancers
INO80D	1.15	Protein coding	INO80 complex subunit D
NHS	1.14	Protein coding	NHS actin remodeling regulator
MED23	1.14	Protein coding	Mediator complex subunit 23
B3GNT5	1.14	Protein coding	UDP-glcNAc:βgal β-1,3-N-acetylglucosaminyltransferase 5
BMPR2	1.14	Protein coding	Bone morphogenetic protein receptor type II
ITSN2	1.14	Protein coding	Intersectin 2
ABHD2	1.14	Protein coding	Abhydrolase domain containing 2
BX322557.10	1.14	Processed transcript	NA
ATP11B	1.14	Protein coding	Atpase class VI type 11B
MACF1	1.14	Protein coding	Microtubule-actin crosslinking factor 1
RP5-884M6.1	1.14	lncRNA	NA
LRRC8B	1.14	Protein coding	Leucine-rich repeat containing 8 family member B
ASPM	1.14	Protein coding	Abnormal spindle microtubule assembly
AC010976.2	1.14	Antisense	NA
BRWD1	1.14	Protein coding	Bromodomain and WD repeat domain containing 1
NPAT	1.14	Protein coding	Nuclear protein ataxia-telangiectasia locus
CYP51A1	1.14	Protein coding	Cytochrome P450 family 51 subfamily A member 1
MT-ND4L	1.13	Protein coding	Mitochondrially encoded NADH:ubiquinone oxidoreductase core subunit 4L
ZNF106	1.13	Protein coding	Zinc finger protein 106
ARFGEF2	1.13	Protein coding	ADP ribosylation factor guanine nucleotide exchange factor 2
ZNF322	1.13	Protein coding	Zinc finger protein 322
NNAT	1.13	Protein coding	NeuroNAtin
RAD54L2	1.13	Protein coding	RAD54-like 2 ( <i>S. Cerevisiae</i> )
CCDC14	1.13	Protein coding	Coiled-coil domain containing 14
CHD1	1.13	Protein coding	Chromodomain helicase DNA binding protein 1
SYDE2	1.13	Protein coding	SyNApse defective 1 Rho gtpase homolog 2 ( <i>C. Elegans</i> )
USP24	1.13	Protein coding	Ubiquitin specific peptidase 24
CHM	1.13	Protein coding	Choroideremia (Rab escort protein 1)
ATP13A3	1.13	Protein coding	Atpase type 13A3
PLEKHA8	1.12	Protein coding	Pleckstrin homology domain containing A8
ERVK3-1	1.12	Protein coding	Endogenous retrovirus group K3 member 1
RAB30	1.12	Protein coding	RAB30 member RAS oncogene family
BORA	1.12	Protein coding	Bora aurora kinase A activator
NKTR	1.12	Protein coding	Natural killer cell triggering receptor
TRIM33	1.12	Protein coding	Tripartite motif containing 33
LONRF3	1.12	Protein coding	LON peptidase N-terminal domain and ring finger 3

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
ZDHHC21	1.12	Protein coding	Zinc finger DHHC-type containing 21
ARHGEF12	1.12	Protein coding	Rho guanine nucleotide exchange factor 12
PLEKHH2	1.12	Protein coding	Pleckstrin homology myth4 and FERM domain containing H2
RASAL2	1.12	Protein coding	RAS protein activator like 2
PDE11A	1.12	Protein coding	Phosphodiesterase 11A
KIAA1107	1.12	Protein coding	Kiaa1107
CEP85L	1.12	Protein coding	Centrosomal protein 85kda-like
NEDD4	1.12	Protein coding	Neural precursor cell expressed developmentally down-regulated 4 E3 ubiquitin protein ligase
CDK12	1.12	Protein coding	Cyclin-dependent kiNAse 12
NUFIP2	1.11	Protein coding	Nuclear fragile X mental retardation protein interacting protein 2
KIDINS220	1.11	Protein coding	KiNAse D-interacting substrate 220kda
TNKS2	1.11	Protein coding	Tankyrase TRF1-interacting ankyrin-related ADP-ribose polymerase 2
CDK6	1.11	Protein coding	Cyclin-dependent kiNAse 6
PEAK1	1.11	Protein coding	Pseudopodium-enriched atypical kiNAse 1
RC3H2	1.11	Protein coding	Ring finger and CCCH-type domains 2
KLHL28	1.11	Protein coding	Kelch like family member 28
ZNF510	1.11	Protein coding	Zinc finger protein 510
KIAA2026	1.11	Protein coding	Kiaa2026
CCDC88A	1.11	Protein coding	Coiled-coil domain containing 88A
HEATR1	1.11	Protein coding	HEAT repeat containing 1
OPHN1	1.11	Protein coding	Oligophrenin 1
BBS10	1.11	Protein coding	Bardet-Biedl syndrome 10
GPATCH2	1.10	Protein coding	G-patch domain containing 2
ADAM22	1.10	Protein coding	ADAM metallopeptidase domain 22
NUP153	1.10	Protein coding	Nucleoporin 153kda
SMARCAD1	1.10	Protein coding	SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily a containing DEAD/H box 1
NBPF12	1.10	Protein coding	Neuroblastoma breakpoint family member 12
IL6ST	1.10	Protein coding	Interleukin 6 sigNAI transducer
PANK3	1.10	Protein coding	PantotheNAte kiNAse 3
LNPEP	1.10	Protein coding	Leucyl/cysteinyl aminopeptidase
OTUD4	1.10	Protein coding	OTU deubiquitiNAse 4
ERI2	1.10	Protein coding	ERI1 exoribonuclease family member 2
PPP1R12B	1.10	Protein coding	Protein phosphatase 1 regulatory subunit 12B
ABL2	1.10	Protein coding	ABL proto-oncogene 2 non-receptor tyrosine kiNAse
RP11-539I5.1	1.10	Antisense	NA
RP11-440L14.1	1.10	Antisense	NA
SLC7A6	1.10	Protein coding	Solute carrier family 7 (amino acid transporter light chain y+L system) member 6
LRRC37A16P	1.10	Transcribed unprocessed pseudogene	Leucine-rich repeat containing 37 member A16 pseudogene
PER2	1.10	Protein coding	Period circadian clock 2
SLC40A1	1.10	Protein coding	Solute carrier family 40 (iron-regulated transporter) member 1
KIZ-AS1	1.10	Antisense	KIZ antisense RNA 1
LINC00894	1.09	Antisense	Long intergenic non-protein coding RNA 894
KIAA1958	1.09	Protein coding	Kiaa1958
KLF12	1.09	Protein coding	Kruppel-like factor 12
SON	1.09	Protein coding	SON DNA binding protein
ANKFY1	1.09	Protein coding	Ankyrin repeat and FYVE domain containing 1

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
SLC25A36	1.09	Protein coding	Solute carrier family 25 (pyrimidine nucleotide carrier) member 36
MTR	1.09	Protein coding	5-methyltetrahydrofolate-homocysteine methyltransferase
PAPOLG	1.09	Protein coding	Poly(A) polymerase γ
XPO4	1.09	Protein coding	Exportin 4
CDON	1.09	Protein coding	Cell adhesion associated oncogene regulated
RBM41	1.09	Protein coding	RNA binding motif protein 41
DNAH12	1.09	Protein coding	Dynein axonemal heavy chain 12
TTLL7	1.09	Protein coding	Tubulin tyrosine ligase like 7
VASH2	1.09	Protein coding	Vasohibin 2
KIF2A	1.09	Protein coding	Kinesin heavy chain member 2A
RP11-111M22.2	1.09	Protein coding	NA
KDM5A	1.09	Protein coding	Lysine (K)-specific demethylase 5A
ICE1	1.09	Protein coding	Interactor of little elongation complex ELL subunit 1
AC093818.1	1.09	Antisense	NA
CLASP2	1.09	Protein coding	Cytoplasmic linker associated protein 2
IQGAP1	1.09	Protein coding	IQ motif containing gtpase activating protein 1
AFF1	1.09	Protein coding	AF4/FMR2 family member 1
STARD9	1.09	Protein coding	Star related lipid transfer domain containing 9
AC083843.1	1.09	LincRNA	NA
ARAP2	1.09	Protein coding	Arfgap with rhogap domain ankyrin repeat and PH domain 2
KIF14	1.08	Protein coding	Kinesin family member 14
KRT43P	1.08	Unprocessed pseudogene	Keratin 43 pseudogene
SPIN3	1.08	Protein coding	Spindlin family member 3
NAV1	1.08	Protein coding	Neuron NAVigator 1
ZNF585A	1.08	Protein coding	Zinc finger protein 585A
ANK2	1.08	Protein coding	Ankyrin 2 neuroNAL
RP11-776H12.1	1.08	LincRNA	NA
FGD4	1.08	Protein coding	FYVE rhogef and PH domain containing 4
ZNF549	1.08	Protein coding	Zinc finger protein 549
DPY19L4	1.08	Protein coding	Dpy-19-like 4 (C. Elegans)
DENND4A	1.08	Protein coding	DENN/MADD domain containing 4A
SLC9A2	1.08	Protein coding	Solute carrier family 9 subfamily A (NHE2 cation proton antiporter 2) member 2
UTP20	1.08	Protein coding	UTP20 small subunit processome component
HIPK3	1.08	Protein coding	Homeodomain interacting protein kiNAse 3
LMBRD2	1.08	Protein coding	LMBR1 domain containing 2
GAB1	1.08	Protein coding	GRB2 associated binding protein 1
CCDC186	1.08	Protein coding	Coiled-coil domain containing 186
ADAM17	1.07	Protein coding	ADAM metallopeptidase domain 17
MON2	1.07	Protein coding	MON2 homolog regulator of endosome-to-Golgi trafficking
SRFBP1	1.07	Protein coding	Serum response factor binding protein 1
GLCCI1	1.07	Protein coding	Glucocorticoid induced 1
ATF7IP	1.07	Protein coding	Activating transcription factor 7 interacting protein
ATP8A1	1.07	Protein coding	Atpase aminophospholipid transporter (APLT) class I type 8A member 1
ARL5B	1.07	Protein coding	ADP ribosylation factor like gtpase 5B
ANKRD50	1.07	Protein coding	Ankyrin repeat domain 50
RP11-212I21.4	1.07	LincRNA	NA
AFF2	1.07	Protein coding	AF4/FMR2 family member 2
ITGAV	1.07	Protein coding	Integrin subunit α V
MCOLN3	1.07	Protein coding	Mucolipin 3

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
ATXN1L	1.07	Protein coding	Ataxin 1-like
TBC1D14	1.07	Protein coding	TBC1 domain family member 14
ZFYVE16	1.07	Protein coding	Zinc finger FYVE domain containing 16
MTF1	1.07	Protein coding	Metal-regulatory transcription factor 1
SMCHD1	1.07	Protein coding	Structural mainteNAnce of chromosomes flexible hinge domain containing 1
PRKAA2	1.06	Protein coding	Protein kiNAse AMP-activated $\alpha$ 2 catalytic subunit
PFKFB2	1.06	Protein coding	6-phosphofructo-2-kiNAse/fructose-26-biphosphatase 2
DSP	1.06	Protein coding	Desmoplakin
EEA1	1.06	Protein coding	Early endosome antigen 1
WDPCP	1.06	Protein coding	WD repeat containing plaNAr cell polarity effector
TANC1	1.06	Protein coding	Tetratricopeptide repeat ankyrin repeat and coiled-coil containing 1
PRRC2B	1.06	Protein coding	Proline-rich coiled-coil 2B
BMP2K	1.06	Protein coding	BMP2 inducible kiNAse
CLSTN2	1.06	Protein coding	Calsyntenin 2
RP1-140K8.5	1.06	LncrNA	NA
SHROOM4	1.06	Protein coding	Shroom family member 4
ZNF337-AS1	1.06	Antisense	ZNF337 antisense RNA 1
RP11-705C15.2	1.06	Transcribed unprocessed pseudogene	NA
SPIRE1	1.06	Protein coding	Spire-type actin nucleation factor 1
SLFN5	1.06	Protein coding	Schlafen family member 5
PYROXD1	1.06	Protein coding	Pyridine nucleotide-disulphide oxidoreductase domain 1
ADGRG6	1.06	Protein coding	Adhesion G protein-coupled receptor G6
CLOCK	1.06	Protein coding	Clock circadian regulator
IPO8	1.06	Protein coding	Importin 8
ZNF484	1.06	Protein coding	Zinc finger protein 484
MYEF2	1.06	Protein coding	Myelin expression factor 2
ZDHHC17	1.06	Protein coding	Zinc finger DHHC-type containing 17
RECQL	1.06	Protein coding	Recq helicase-like
UBXN7	1.06	Protein coding	UBX domain protein 7
HEATR5B	1.05	Protein coding	HEAT repeat containing 5B
FNDC3B	1.05	Protein coding	Fibronectin type III domain containing 3B
ACAP2	1.05	Protein coding	Arfgap with coiled-coil ankyrin repeat and PH domains 2
ZYG11B	1.05	Protein coding	Zyg-11 family member B cell cycle regulator
ZNF233	1.05	Protein coding	Zinc finger protein 233
ZNF91	1.05	Protein coding	Zinc finger protein 91
TSHZ2	1.05	Protein coding	Teashirt zinc finger homeobox 2
ZFC3H1	1.05	Protein coding	Zinc finger C3H1-type containing
TAF1	1.05	Protein coding	TATA-box binding protein associated factor 1
COL6A3	1.05	Protein coding	Collagen type VI $\alpha$ 3
PAG1	1.05	Protein coding	Phosphoprotein membrane anchor with glycosphingolipid microdomains 1
USP45	1.05	Protein coding	Ubiquitin specific peptidase 45
EPM2AIP1	1.05	Protein coding	EPM2A (laforin) interacting protein 1
ATG2B	1.05	Protein coding	Autophagy related 2B
AKAP9	1.05	Protein coding	A-kiNAse anchoring protein 9
TANC2	1.05	Protein coding	Tetratricopeptide repeat ankyrin repeat and coiled-coil containing 2
FAM126A	1.05	Protein coding	Family with sequence similarity 126 member A
PPM1L	1.05	Protein coding	Protein phosphatase Mg <sup>2+</sup> /Mn <sup>2+</sup> dependent 1L
TRRAP	1.05	Protein coding	Transformation/transcription domain-associated protein

Table SII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full gene name
ATP11C	1.04	Protein coding	Atpase class VI type 11C
CAMSAP2	1.04	Protein coding	Calmodulin regulated spectrin associated protein family member 2
TNRC6A	1.04	Protein coding	Trinucleotide repeat containing 6A
MIAT	1.04	LincRNA	Myocardial infarction associated transcript (non-protein coding)
TTC33	1.04	Protein coding	Tetratricopeptide repeat domain 33
FAM199X	1.04	Protein coding	Family with sequence similarity 199 X-linked
ICK	1.04	Protein coding	IntestiNAL cell (MAK-like) kiNAse
DNAJC6	1.04	Protein coding	DNAJ heat shock protein family (Hsp40) member C6
KIAA1671	1.04	Protein coding	Kiaa1671
FBXO11	1.04	Protein coding	F-box protein 11
DNAJB14	1.04	Protein coding	DNAJ heat shock protein family (Hsp40) member B14
POLQ	1.04	Protein coding	Polymerase (DNA directed) theta
PPP1R12A	1.04	Protein coding	Protein phosphatase 1 regulatory subunit 12A
ATXN1	1.04	Protein coding	Ataxin 1
ZCCHC6	1.04	Protein coding	Zinc finger CCHC domain containing 6
MAGI3	1.03	Protein coding	Membrane associated guanylate kiNAse WW and PDZ domain containing 3
GULP1	1.03	Protein coding	GULP engulfment adaptor PTB domain containing 1
MBTD1	1.03	Protein coding	Mbt domain containing 1
ROCK1	1.03	Protein coding	Rho-associated coiled-coil containing protein kiNAse 1
CLIP1	1.03	Protein coding	CAP-Gly domain containing linker protein 1
CTD-2553L13.9	1.03	Tec	NA
GABRQ	1.03	Protein coding	Gamma-aminobutyric acid (GABA) A receptor theta
RANBP2	1.03	Protein coding	RAN binding protein 2
ARL17A	1.03	Protein coding	ADP ribosylation factor like gtpase 17A
TUBE1	1.03	Protein coding	Tubulin epsilon 1
AGO2	1.03	Protein coding	ArgoNAute 2 RISC catalytic component
POU2F1	1.03	Protein coding	POU class 2 homeobox 1
ZBTB38	1.03	Protein coding	Zinc finger and BTB domain containing 38
ZNF215	1.03	Protein coding	Zinc finger protein 215
FOXN2	1.03	Protein coding	Forkhead box N2
CHD7	1.03	Protein coding	Chromodomain helicase DNA binding protein 7
CCDC39	1.03	Protein coding	Coiled-coil domain containing 39
ATP9A	1.03	Protein coding	Atpase class II type 9A
MED1	1.02	Protein coding	Mediator complex subunit 1
CNTNAP3	1.02	Protein coding	Contactin associated protein-like 3
CTD-3092A11.1	1.02	Transcribed unprocessed pseudogene	NA
SLC26A2	1.02	Protein coding	Solute carrier family 26 (anion exchanger) member 2
ROCK2	1.02	Protein coding	Rho-associated coiled-coil containing protein kiNAse 2
RAB3GAP2	1.02	Protein coding	RAB3 gtpase activating non-catalytic protein subunit 2
ZNF704	1.02	Protein coding	Zinc finger protein 704
PPIP5K2	1.02	Protein coding	Diphosphoinositol pentakisphosphate kiNAse 2
FYCO1	1.02	Protein coding	FYVE and coiled-coil domain containing 1
SYNE1	1.02	Protein coding	Spectrin repeat containing nuclear envelope 1
ZNF24	1.02	Protein coding	Zinc finger protein 24
KIF21A	1.02	Protein coding	Kinesin family member 21A
RP11-463O12.5	1.02	Tec	NA

Table SII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full gene name
FRMD3	1.02	Protein coding	FERM domain containing 3
RP11-1023L17.1	1.02	Transcribed unprocessed pseudogene	NA
ZNF253	1.02	Protein coding	Zinc finger protein 253
RP11-401P9.6	1.02	Antisense	NA
CFAP97	1.02	Protein coding	Cilia and flagella associated protein 97
LTN1	1.02	Protein coding	Listerin E3 ubiquitin protein ligase 1
EBLN3	1.02	LincRNA	Endogenous borNAvirus-like nucleoprotein 3
HERC3	1.02	Protein coding	HECT and RLD domain containing E3 ubiquitin protein ligase 3
FAM73A	1.02	Protein coding	Family with sequence similarity 73 member A
UHMK1	1.02	Protein coding	U2AF homology motif (UHM) kiNAse 1
NAV2	1.02	Protein coding	Neuron NAvigator 2
KIF1B	1.02	Protein coding	Kinesin family member 1B
ARHGAP21	1.02	Protein coding	Rho gtpase activating protein 21
KDM7A	1.02	Protein coding	Lysine (K)-specific demethylase 7A
HOOK1	1.02	Protein coding	Hook microtubule-tethering protein 1
C1RL-AS1	1.02	Antisense	C1RL antisense RNA 1
TNPO1	1.01	Protein coding	Transportin 1
NCOA3	1.01	Protein coding	Nuclear receptor coactivator 3
BIRC3	1.01	Protein coding	Baculoviral IAP repeat containing 3
BTBD7	1.01	Protein coding	BTB (POZ) domain containing 7
THSD4	1.01	Protein coding	Thrombospondin type 1 domain containing 4
ZNF608	1.01	Protein coding	Zinc finger protein 608
ZNF780A	1.01	Protein coding	Zinc finger protein 780A
SOCS4	1.01	Protein coding	Suppressor of cytokine sigNAling 4
ZNF37BP	1.01	Transcribed processed pseudogene	Zinc finger protein 37B pseudogene
RP11-206L10.9	1.01	LincRNA	NA
FRY	1.01	Protein coding	FRY microtubule binding protein
TTC37	1.01	Protein coding	Tetratricopeptide repeat domain 37
CEP290	1.00	Protein coding	Centrosomal protein 290kda
NIPBL	1.00	Protein coding	Nipped-B homolog (Drosophila)
LUZP1	1.00	Protein coding	Leucine zipper protein 1
CDYL2	1.00	Protein coding	Chromodomain protein Y-like 2
UBR3	1.00	Protein coding	Ubiquitin protein ligase E3 component n-recognition 3 (putative)
ETV1	1.00	Protein coding	Ets variant 1
C6orf183	1.00	Polymorphic pseudogene	Chromosome 6 open reading frame 183
RP11-894P9.1	1.00	Antisense	NA

MiRNA, microRNA; SnoRNA, small nucleolar RNA; lincRNA, long intergenic RNA; NA, not available (no data in Ensembl database).

Table SIII. Expression of 980 differentially downregulated genes (miR-424-5p mimics vs. mimics control, P&lt;0.05).

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
RP11-65L3.2	-6.90	Antisense	PDZ and LIM domain 2 (mystique)
AC004987.9	-6.41	Processed pseudogene	S100 calcium binding protein A3
CGB5	-6.41	Protein coding	NA
KBTBD11-OT1	-6.41	LincrNA	Small integral membrane protein 24
FAM209A	-6.26	Protein coding	Transforming growth factor $\beta$ 1 induced transcript 1
CTD-2521M24.6	-6.26	Antisense	Zinc finger protein 513
RP11-229P13.2	-6.26	Processed pseudogene	Major facilitator superfamily domain containing 10
RP11-327E2.5	-6.10	Tec	RBPJ interacting and tubulin associated 1
ABI3	-6.10	Protein coding	Cytochrome c-1
SNHG22	-6.10	Antisense	MAF1 homolog negative regulator of RNA polymerase III
SLC6A4	-5.91	Protein coding	Armadillo repeat containing 6
NANOS2	-5.91	Protein coding	Tubulin folding cofactor B
SPDYE17	-5.91	Unprocessed pseudogene	Coiled-coil-helix-coiled-coil-helix domain containing 6
AGXT	-5.91	Protein coding	Pleckstrin homology and FYVE domain containing 1
CLEC17A	-5.91	Protein coding	Transducin ( $\beta$ )-like 3
RP11-383C5.3	-5.91	Processed transcript	Polymerase (DNA directed) delta 1 catalytic subunit
RP4-655J12.4	-5.69	LincrNA	Caspase recruitment domain family member 19
IL1R2	-5.69	Protein coding	REC8 meiotic recombiNAtion protein
SPATA3	-5.69	Protein coding	Carbohydrate (chondroitin 4) sulfotransferase 12
AP001628.7	-5.69	LincrNA	Ubiquitin conjugating enzyme E2S
REG3A	-5.69	Protein coding	CDP-diacylglycerol-inositol 3-phosphatidyltransferase
SNORD7	-5.69	SnorNA	Mesothelin-like
ISCA1P4	-5.69	Processed pseudogene	Prostaglandin E synthase 2
HYI-AS1	-5.69	Antisense	N-methylpurine DNA glycosylase
RP11-15N24.4	-5.69	Sense overlapping	Sterile $\alpha$ motif domain containing 1
RP11-359K18.4	-5.69	Sense intronic	Claudin 23
RP11-387M24.5	-5.69	Antisense	Small nuclear RNA activating complex polypeptide 4
RN7SL513P	-5.69	Misc RNA	Coiled-coil domain containing 64B
RP11-219B17.3	-5.69	LincrNA	Nudix hydrolase 8
U47924.29	-4.23	Antisense	Cyclin-dependent kiNAse 2 associated protein 2
PCED1B	-3.98	Protein coding	Iroquois homeobox 5
UBE2MP1	-3.79	Processed pseudogene	THO complex 6
OMP	-3.79	Protein coding	Fibronectin type III and SPRY domain containing 1
TPO	-3.68	Protein coding	Long intergenic non-protein coding RNA 908
KRT42P	-3.57	Transcribed unprocessed pseudogene	Complement factor D (adipsin)
KB-51A8.1	-3.44	LincrNA	NA
RP11-867G23.12	-3.44	Antisense	Transmembrane protein 129
CTA-268H5.14	-3.44	LincrNA	NA
ERN2	-3.31	Protein coding	Transmembrane protein 191A (pseudogene)
BEND6	-3.31	Protein coding	STIP1 homology and U-box containing protein 1
			E3 ubiquitin protein ligase
RP11-111F5.4	-3.31	LincrNA	Kiaa2013
RP11-665C16.6	-3.31	LincrNA	Family with sequence similarity 167 member B
RNU2-27P	-3.16	SnrNA	Protein kiNAse membrane associated tyrosine/threonine 1
RP1-178F10.1	-3.16	Antisense	Coronin actin binding protein 1B
RP4-647C14.3	-3.16	Antisense	Lin-7 homolog B (C. Elegans)
RP5-963E22.6	-3.16	LincrNA	Glucose-6-phosphate dehydrogeNAse
RP5-1042I8.7	-3.16	Sense overlapping	GTF2I repeat domain containing 2B
CTD-2199O4.6	-3.16	LincrNA	Kv channel interacting protein 3
ADGRD1	-3.16	Protein coding	Zinc finger protein 628
GSTM3	-3.07	Protein coding	XPA binding protein 2
FTH1P8	-3.07	Processed pseudogene	TIMP metallopeptidase inhibitor 1
ADGRE1	-3.07	Protein coding	Oxidoreductase-like domain containing 1
GS1-393G12.14	-2.97	Antisense	G-patch domain and ankyrin repeats 1

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
USHBP1	-2.97	Protein coding	SyNAptonemal complex central element protein 1-like
CTB-25B13.5	-2.90	LincRNA	Titin-cap
DUSP8P3	-2.88	Processed pseudogene	Telomere mainteNAnce 2
RP11-727F15.9	-2.77	Antisense	Leucine rich repeat containing 75B
CCL3	-2.77	Protein coding	B-13-glucuronyltransferase 3
CTB-40H15.4	-2.77	LincRNA	Transmembrane protein 161A
RP11-434H6.7	-2.76	LincRNA	Mitogen-activated protein kiNAse kiNAse kiNAse 11
AC007292.3	-2.68	Antisense	N( $\alpha$ )-acetyltransferase 60 NAtf catalytic subunit
RP11-173B14.4	-2.66	Sense intronic	Par-6 family cell polarity regulator $\alpha$
AC090587.5	-2.66	Antisense	Aarf domain containing kiNAse 5
CTA-223H9.9	-2.66	LincRNA	Vesicle associated membrane protein 5
CTB-133G6.2	-2.66	Antisense	Pyroline-5-carboxylate reductase-like
SBSN	-2.66	Protein coding	Nicalin
DKFZP434A062	-2.63	LincRNA	Zinc finger protein 408
SLC6A12	-2.60	Protein coding	Uroplakin 3B
NOS2P3	-2.53	Transcribed unprocessed pseudogene	F-box protein 44
EXOC3L2	-2.53	Protein coding	Protein phosphatase 1 regulatory subunit 12C
RP11-396B14.2	-2.53	LincRNA	Multivesicular body subunit 12A
RP3-395M20.9	-2.53	LincRNA	NA
CCNT2-AS1	-2.53	Antisense	Forkhead box D1
CTC-451P13.1	-2.53	Processed pseudogene	P53-induced death domain protein 1
RP1-170O19.17	-2.51	LincRNA	Shroom family member 1
NBPF4	-2.50	Protein coding	Fibronectin type III domain containing 4
RP11-16E18.3	-2.43	LincRNA	Cysteine/histidine-rich 1
ATP5G1P4	-2.43	Processed pseudogene	NA
SERPIND1	-2.42	Protein coding	Sphingomyelin phosphodiesterase 5
RP11-666A20.3	-2.42	Processed pseudogene	Paralemmin 3
C17orf82	-2.40	LincRNA	KN motif and ankyrin repeat domains 3
TMEM37	-2.36	Protein coding	NA
SLC25A34	-2.32	Protein coding	TOB1 antisense RNA 1
CAHM	-2.32	LincRNA	Leucine rich repeat and fibronectin type III domain containing 1
RP11-553L6.5	-2.29	LincRNA	Glutamate receptor ionotropic N-methyl D-aspartate 1
F8A3	-2.29	Protein coding	Ubiquitin conjugating enzyme E2M
TMEM132E	-2.25	Protein coding	NADH:ubiquinone oxidoreductase core subunit S8
SCGB1B2P	-2.25	LincRNA	Maestro heat-like repeat family member 6
CTD-3064M3.4	-2.21	Antisense	Clathrin light chain B
LINC00299	-2.21	LincRNA	CDC42 effector protein (Rho gtpase binding) 1
TMEM89	-2.21	Protein coding	Pancreatic progenitor cell differentiation and proliferation factor
YBX1P10	-2.21	Processed pseudogene	Opioid growth factor receptor
AC011298.2	-2.21	LincRNA	NADH:ubiquinone oxidoreductase core subunit V1
LAMC3	-2.13	Protein coding	Ribonuclease P/MRP 25kda subunit-like
BTBD18	-2.10	Protein coding	Arrestin domain containing 1
RP11-889L3.1	-2.10	Processed pseudogene	Collagen type XI $\alpha$ 2
ADRA2B	-2.10	Protein coding	Digeorge syndrome critical region gene 14
RP11-552F3.10	-2.08	Antisense	Phospholipase D family member 3
RP11-345J4.3	-2.07	Protein coding	FOXD3 antisense RNA 1 (head to head)
RP1-151B14.6	-2.06	Antisense	Family with sequence similarity 50 member A
PAGE2B	-2.06	Protein coding	Troponin T type 1 (skeletal slow)
RP11-347C12.3	-2.03	Protein coding	TrNA methyltransferase 61A
SCO2	-2.02	Protein coding	Zinc finger protein 219
CTD-2033A16.3	-2.02	Antisense	Zinc finger protein 48
SNORD6	-2.02	SnorNA	24-dienoyl-coa reductase 2 peroxisomal
RSPH14	-2.02	Protein coding	Macrophage stimulating 1 (hepatocyte growth factor-like) pseudogene 2

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
ATP4A	-1.96	Protein coding	Tonsoku-like DNA repair protein
CCDC189	-1.95	Protein coding	N-acetyltransferase 6 (GCN5-related)
NECAB2	-1.93	Protein coding	Protein kiNAse C and casein kiNAse substrate in neurons 3
CTD-2186M15.3	-1.92	LincRNA	Tryptase $\gamma$ 1
TNFRSF4	-1.89	Protein coding	Dihydrouridine synthase 3-like
OAZ3	-1.89	Protein coding	Nucleobindin 1
RP11-382D12.2	-1.89	LincRNA	PTEN induced putative kiNAse 1
PCSK1N	-1.87	Protein coding	MACRO domain containing 1
CRIP1	-1.83	Protein coding	Progastriicsin (pepsinogen C)
C8orf76	-1.82	Protein coding	Protein kiNAse camp-dependent regulatory subunit type I $\beta$
WNT6	-1.81	Protein coding	Frizzled class receptor 2
AC004221.2	-1.80	LincRNA	DNA damage inducible transcript 3
TMEM262	-1.80	Protein coding	EPS8 like 1
IGF2-AS	-1.79	Antisense	Phosphohistidine phosphatase 1
RN7SL521P	-1.79	Misc RNA	NA
TMSB4XP8	-1.78	Processed pseudogene	TrNA phosphotransferase 1
C2	-1.78	Protein coding	NicotiNAte phosphoribosyltransferase
ADAT3	-1.76	Protein coding	Peptide deformylase (mitochondrial)
LHB	-1.75	Protein coding	ADP ribosylation factor gtpase activating protein 1
CTXN1	-1.75	Protein coding	Solute carrier family 52 (riboflavin transporter) member 2
HBQ1	-1.73	Protein coding	Hepsin
PKDCC	-1.73	Protein coding	COX16 cytochrome c oxidase assembly homolog
GZMM	-1.72	Protein coding	Guanine nucleotide binding protein (G protein) $\beta$ polypeptide 2
CTD-2589H19.6	-1.72	Antisense	Solute carrier family 39 (zinc transporter) member 4
ALPL	-1.72	Protein coding	Lemur tyrosine kiNAse 3
DACT2	-1.71	Protein coding	Heat shock transcription factor 1
RP11-550I24.2	-1.71	Processed transcript	Sp5 transcription factor
RP11-468E2.5	-1.71	LincRNA	Myosin light chain 9
FBLL1	-1.70	Protein coding	Mitochondrial ribosomal protein L43
LSP1	-1.69	Protein coding	Synuclein $\gamma$
CACNG4	-1.69	Protein coding	RELT-like 2
CD7	-1.69	Protein coding	Phosphatidylinositol glycan anchor biosynthesis class Q
CNIH2	-1.69	Protein coding	Ephrin-A2
C19orf73	-1.68	Protein coding	Interferon regulatory factor 3
C2CD4D	-1.67	Protein coding	Lymphotoxin $\beta$
SCX	-1.67	Protein coding	Sirtuin 6
GPX1P1	-1.66	Processed pseudogene	Immunoglobulin superfamily member 21
TRIM74	-1.66	Protein coding	Rho guanine nucleotide exchange factor 16
VGF	-1.66	Protein coding	Sodium channel voltage gated type I $\beta$ subunit
SYT3	-1.66	Protein coding	Coiled-coil domain containing 167
XXbac-BPG299F13.17	-1.65	Antisense	Solute carrier family 39 (zinc transporter) member 3
RP11-383I23.2	-1.64	LincRNA	Membrane associated ring-CH-type finger 2
GCHFR	-1.64	Protein coding	F-box and WD repeat domain containing 9
SNCB	-1.64	Protein coding	Adrenocortical dysplasia homolog (mouse)
MIR6784	-1.64	MirNA	X-ray repair complementing defective repair in Chinese hamster cells 3
TNFRSF13C	-1.64	Protein coding	SHC (Src homology 2 domain containing) transforming protein 2
TMEM88	-1.63	Protein coding	Mitogen-activated protein kiNAse kiNAse kiNAse 10
CITED4	-1.63	Protein coding	NA
RTN4RL2	-1.62	Protein coding	Recq helicase-like 4
HS3ST6	-1.62	Protein coding	Leukocyte receptor tyrosine kiNAse
PPP1R16A	-1.62	Protein coding	Transcription elongation factor B (SIII) polypeptide 2 (18kda elongin B)

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
UBE2QL1	-1.62	Protein coding	Mucosal vascular addressin cell adhesion molecule 1
RP11-927P21.4	-1.62	Unprocessed pseudogene	WD repeat domain 13
ZNF205	-1.62	Protein coding	Protein phosphatase 1 regulatory subunit 37
CTC-329D1.2	-1.62	Antisense	Angiopoietin like 4
RPL41P5	-1.61	Processed pseudogene	Pre-mrNA processing factor 31
STAB1	-1.60	Protein coding	Katanin p80 (WD repeat containing) subunit B 1
TNNI2	-1.60	Protein coding	Death-associated protein kiNAse 3
IDH1-AS1	-1.60	Antisense	Zinc finger protein 428
RP1-202O8.2	-1.60	Antisense	Enoyl-coa delta isomerase 1
RP1-191J18.66	-1.59	Antisense	Fructosamine 3 kiNAse
RP11-1275H24.2	-1.57	LincRNA	Poly(rc) binding protein 4
RP11-710M11.1	-1.55	Processed pseudogene	Isocitrate dehydrogeNAse 3 (NAD+) $\gamma$
GTF2IRD2	-1.55	Protein coding	Growth differentiation factor 15
ACTL10	-1.55	Protein coding	Ceramide synthase 1
FBXL15	-1.55	Protein coding	Glioma tumor suppressor candidate region gene 2
HES4	-1.55	Protein coding	Meteorin glial cell differentiation regulator-like
ARF4P2	-1.55	Processed pseudogene	Ureidoimidazoline (2-oxo-4-hydroxy-4-carboxy-5-) decarboxylase
SIX2	-1.55	Protein coding	SigNAI transducing adaptor family member 2
HBE1	-1.55	Protein coding	Sphingosine-1-phosphate receptor 4
ZNF579	-1.55	Protein coding	Angiotensin II receptor-associated protein
RTN4R	-1.55	Protein coding	Adhesion regulating molecule 1
TPGS1	-1.55	Protein coding	Tumor suppressing subtransferable candidate 4
CYSRT1	-1.55	Protein coding	Star related lipid transfer domain containing 10
CTC-1337H24.4	-1.54	LincRNA	KCNQ1 downstream neighbor (non-protein coding)
HAGHL	-1.53	Protein coding	Gasdermin D
SOX18	-1.53	Protein coding	Zinc finger protein 784
RP11-304L19.13	-1.53	LincRNA	Splicing factor 3a subunit 2
RP11-33E12.2	-1.52	Tec	THAP domain containing 7
RPS7P10	-1.52	Processed pseudogene	Zinc finger protein 653
TMPRSS4	-1.52	Protein coding	Family with sequence similarity 110 member A
WWTR1-AS1	-1.52	Antisense	Coiled-coil domain containing 9
STAG3L5P-PVRIG2P-PILRB	-1.52	Processed transcript	Upstream transcription factor 2 c-fos interacting
LINC01135	-1.51	LincRNA	Leucine-rich repeats and WD repeat domain containing 1
AZU1	-1.51	Protein coding	Glycerophosphodiester phosphodiesterase domain containing 3
CFP	-1.51	Protein coding	NA
TNFRSF18	-1.50	Protein coding	Zinc finger protein 768
INAFM1	-1.50	Protein coding	NeuroNAI tyrosine-phosphorylated phosphoinositide-3-kiNAse adaptor 1
CALY	-1.50	Protein coding	Dopamine receptor D4
NRTN	-1.50	Protein coding	Tripartite motif containing 11
FGD3	-1.50	Protein coding	Hermansky-Pudlak syndrome 6
ALDH16A1	-1.50	Protein coding	Interferon regulatory factor 7
PKD1P6	-1.50	Processed transcript	Pim-3 proto-oncogene serine/threonine kiNAse
PRR22	-1.49	Protein coding	SH2 domain containing 3A
C8orf82	-1.49	Protein coding	Long intergenic non-protein coding RNA 176
AC093620.5	-1.49	Antisense	Parathymosin
CEND1	-1.49	Protein coding	Four jointed box 1
PFN1P1	-1.49	Processed pseudogene	Armadillo repeat gene deleted in velocardiofacial syndrome
CDH22	-1.49	Protein coding	Sodium channel non voltage gated 1 delta subunit
SLC9A3R2	-1.48	Protein coding	BRCA1-associated ATM activator 1
AC090498.1	-1.48	Protein coding	Ribosomal protein L18a pseudogene 3
EXOC3L1	-1.48	Protein coding	Phospholipase A2 group IIE

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
SHISA8	-1.47	Protein coding	AKT1 substrate 1 (proline rich)
CCDC94	-1.47	Protein coding	Phosphorylase kiNAse $\gamma$ 2 (testis)
CRIP2	-1.47	Protein coding	Zinc finger protein FOG family member 1
RP11-34P13.15	-1.47	Processed pseudogene	Chromatin licensing and DNA replication factor 1
TPSB2	-1.47	Protein coding	GalactokiNAse 1
APOC1	-1.46	Protein coding	Hepatoma-derived growth factor-related protein 2
CCDC85B	-1.46	Protein coding	NA
LLNLR-246C6.1	-1.46	LincRNA	Transmembrane protein 158 (gene/pseudogene)
FAM212A	-1.46	Protein coding	Twinfilin actin binding protein 2
AP000692.10	-1.46	Antisense	Secreted frizzled-related protein 5
RN7SL236P	-1.46	Misc RNA	HIG1 hypoxia inducible domain family member 2A
PRR7	-1.46	Protein coding	Chromosome 11 open reading frame 96
CTU1	-1.45	Protein coding	BCL2 binding component 3
VWA1	-1.45	Protein coding	Kruppel-like factor 14
KREMEN2	-1.45	Protein coding	Abhydrolase domain containing 8
KLHL30	-1.45	Protein coding	Paralemmin
CCL20	-1.45	Protein coding	Fanconi anemia core complex associated protein 100
TM4SF19	-1.45	Protein coding	Paired related homeobox 2
CPT1C	-1.45	Protein coding	TOLLIP antisense RNA 1 (head to head)
AC006077.3	-1.45	Tec	Coronin actin binding protein 1A
SERHL	-1.44	Processed transcript	H2A histone family member X
RP11-326C3.2	-1.43	Antisense	Paired-like homeodomain 1
PLPPR3	-1.43	Protein coding	Ruvb-like AAA atpase 2
CLIC3	-1.43	Protein coding	SigNAI peptide peptidase like 2B
LINC01089	-1.43	LincRNA	Sorbin and SH3 domain containing 3
CBFA2T3	-1.43	Protein coding	Myod family inhibitor
BHLHE23	-1.43	Protein coding	Sphingosine kiNAse 1
RP1-140A9.1	-1.43	Antisense	Hexosaminidase (glycosyl hydrolase family 20 catalytic domain) containing
PHOSPHO1	-1.43	Protein coding	Activity-regulated cytoskeleton-associated protein
ZNHIT2	-1.43	Protein coding	Receptor accessory protein 2
ESAM	-1.42	Protein coding	Mitochondrial ribosomal protein L28
RP11-383C5.5	-1.42	Sense intronic	Chromosome 19 open reading frame 25
TMEM121	-1.42	Protein coding	Hyperpolarization activated cyclic nucleotide gated potassium channel 2
SSTR5	-1.42	Protein coding	Ribosomal protein L28
C1QL1	-1.42	Protein coding	SH3 domain binding kiNAse family member 3
RP3-508I15.21	-1.42	Antisense	Lipase maturation factor 2
RP11-378J18.8	-1.42	Antisense	ELF1 homolog elongation factor 1
CTD-3001H11.2	-1.42	Antisense	Follistatin-like 3 (secreted glycoprotein)
SH2B2	-1.42	Protein coding	Fibroblast growth factor 17
CCDC157	-1.41	Protein coding	Potassium channel tetramerization domain containing 17
FBXO2	-1.41	Protein coding	Interferon induced transmembrane protein 10
RP11-334C17.6	-1.41	LincRNA	RGD motif leucine rich repeats tropomodulin domain and proline-rich containing
C4A	-1.41	Protein coding	UBA-like domain containing 1
GRIN2C	-1.41	Protein coding	MevaloNAtc diphosphate decarboxylase
AQP5	-1.41	Protein coding	Poly(rc) binding protein 1
TGFBR3L	-1.41	Protein coding	B9 protein domain 2
TMEM238	-1.41	Protein coding	Sema domain immunoglobulin domain (Ig) short basic domain secreted (semaphorin) 3B
SGF29	-1.41	Protein coding	Translocase of outer mitochondrial membrane 40 homolog (yeast)
TPSAB1	-1.40	Protein coding	Spla/ryanodine receptor domain and SOCS box containing 2
CCDC106	-1.40	Protein coding	Tropomyosin 2 ( $\beta$ )

Table SIII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
C19orf35	-1.40	Protein coding	Rho GDP dissociation inhibitor (GDI) $\gamma$
RP3-395M20.12	-1.40	LincrNA	Transducin like enhancer of split 2
CTB-55O6.8	-1.40	Protein coding	VPS9 domain containing 1
CLPSL2	-1.40	Protein coding	F-box and WD repeat domain containing 5
AMH	-1.40	Protein coding	Ectonucleoside triphosphate diphosphohydrolase 2
NME3	-1.40	Protein coding	Carbohydrate (chondroitin 4) sulfotransferase 13
SFN	-1.39	Protein coding	Nudix hydrolase 22
MFSD3	-1.39	Protein coding	ProteiNAse 3
RPS2P46	-1.39	Processed pseudogene	Polymerase (RNA) II (DNA directed) polypeptide E 25kda
EIF5AL1	-1.39	Protein coding	ADAMTS like 2
LRFN4	-1.39	Protein coding	Prostate cancer associated transcript 6 (non-protein coding)
EPN1	-1.39	Protein coding	Dihydrouridine synthase 1-like
CTU2	-1.39	Protein coding	Dual specificity phosphatase 9
RHPN1	-1.38	Protein coding	Ring finger protein 208
IL17C	-1.38	Protein coding	DR1-associated protein 1 (negative cofactor 2 $\alpha$ )
FAM166A	-1.38	Protein coding	Potassium channel inwardly rectifying subfamily J member 4
HES6	-1.38	Protein coding	1-acylglycerol-3-phosphate O-acyltransferase 2
LYL1	-1.37	Protein coding	Selenoprotein M
RAB11B	-1.37	Protein coding	Ring finger protein 126
MIR429	-1.37	MirNA	NA
NUBP2	-1.37	Protein coding	NA
SLC2A4RG	-1.37	Protein coding	Calcium binding protein 1
TRIM54	-1.36	Protein coding	Family with sequence similarity 195 member A
RP11-159D12.11	-1.36	LincrNA	Dicarbonyl/L-xylulose reductase
PDCD1	-1.36	Protein coding	RAB1B member RAS oncogene family
RP11-353N4.6	-1.36	LincrNA	Protein kiNAse N1
CBARP	-1.36	Protein coding	NA
GNB1L	-1.36	Protein coding	PWWP domain containing 2B
EEF1A2	-1.36	Protein coding	Fibroblast growth factor 3
RP11-1055B8.1	-1.35	Tec	Motor neuron and pancreas homeobox 1
WDR24	-1.35	Protein coding	Caspase recruitment domain family member 9
WDR18	-1.35	Protein coding	Chromosome 2 open reading frame 82
VPS37D	-1.35	Protein coding	NA
IL32	-1.35	Protein coding	Podocalyxin-like 2
KISS1R	-1.35	Protein coding	Protein phosphatase 1 regulatory subunit 32
LOC440461	-1.35	Processed pseudogene	Ribosomal protein S6 kiNAse 90kda polypeptide 4
RP3-388N13.3	-1.35	LincrNA	Proline-rich acidic protein 1
VWCE	-1.35	Protein coding	RAS-like family 10 member A
MMP17	-1.34	Protein coding	Frizzled class receptor 9
METRN	-1.34	Protein coding	NA
JUND	-1.34	Protein coding	Harvey rat sarcoma viral oncogene homolog
ALKBH4	-1.34	Protein coding	L antigen family member 3
HTRA3	-1.34	Protein coding	Long intergenic non-protein coding RNA 1503
SNORA71C	-1.34	SnorNA	Chromosome 16 open reading frame 13
C9orf173	-1.34	Protein coding	Selenoprotein O
TSPAN10	-1.34	Protein coding	Zinc finger protein 444
MIB2	-1.34	Protein coding	Proline rich 5
SKOR1	-1.34	Protein coding	Eukaryotic translation initiation factor 3 subunit G
NPW	-1.34	Protein coding	Fas-activated serine/threonine kiNAse
TP53I13	-1.34	Protein coding	Rab interacting lysosomal protein
CILP2	-1.34	Protein coding	Immediate early response 5-like
C21orf33	-1.34	Protein coding	D site of albumin promoter (albumin D-box) binding protein

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
FAM173A	-1.33	Protein coding	SigNA1-induced proliferation-associated 1
RHBDL1	-1.33	Protein coding	Complement component 1 q subcomponent-like 4
CHD5	-1.33	Protein coding	SR-related CTD-associated factor 1
STXBP2	-1.33	Protein coding	Amnion associated transmembrane protein
LRRC4B	-1.33	Protein coding	Ephrin-A3
MBD3	-1.33	Protein coding	SCAN domain containing 1
OXCT2P1	-1.33	Unprocessed pseudogene	SAC3 domain containing 1
PRR13P5	-1.33	Processed pseudogene	Chromosome 1 open reading frame 233
TLX1	-1.33	Protein coding	Neuromedin B
CRACR2B	-1.33	Protein coding	CCAAT/enhancer binding protein (C/EBP) delta
C1orf127	-1.33	Protein coding	Exonuclease 3'-5' domain containing 3
POLRMT	-1.32	Protein coding	Polymerase (DNA directed) delta 2 accessory subunit
FAM171A2	-1.32	Protein coding	Transmembrane protein 52
MAN1B1-AS1	-1.32	Antisense	Fermitin family member 3
NEU4	-1.32	Protein coding	Catechol-O-methyltransferase domain containing 1
PRRT4	-1.32	Protein coding	Ring finger protein 223
CLDN3	-1.32	Protein coding	Leucine rich repeat containing 56
SHBG	-1.32	Protein coding	Leucine rich repeat containing 73
RP11-434H6.6	-1.32	Antisense	Mercaptopyruvate sulfurtransferase
NOSIP	-1.32	Protein coding	Mesothelin
FAM43B	-1.32	Protein coding	B-13-galactosyltransferase 4
EGFL7	-1.32	Protein coding	Coiled-coil domain containing 61
TMUB1	-1.32	Protein coding	Achaete-scute family bHLH transcription factor 2
RASSF7	-1.32	Protein coding	NA
BBS5	-1.32	Protein coding	Block of proliferation 1
ENTPD8	-1.31	Protein coding	B-cell CLL/lymphoma 7C
AC241377.2	-1.31	Protein coding	Baculoviral IAP repeat containing 7
AC245100.1	-1.31	Protein coding	Coiled-coil domain containing 12
MFI2-AS1	-1.31	Antisense	Urocortin
APOM	-1.31	Protein coding	Inositol-3-phosphate synthase 1
ATAD3A	-1.31	Protein coding	Protein phosphatase 1 regulatory inhibitor subunit 14B pseudogene 3
ZNF580	-1.31	Protein coding	Renin binding protein
RP11-465B22.8	-1.31	LincRNA	Potassium channel voltage gated modifier subfamily G member 1
AP001062.7	-1.31	Antisense	GATA binding protein 6
FAM98C	-1.31	Protein coding	Alkb homolog 7
CYBA	-1.31	Protein coding	NA
RP11-810P12.7	-1.30	Tec	Enkrin domain containing 1
CDC42EP2	-1.30	Protein coding	Eva-1 homolog B (C. Elegans)
RP11-302L19.3	-1.30	LincRNA	Collagen type IX $\alpha$ 3
CDKN1C	-1.30	Protein coding	MYC-associated zinc finger protein (purine-binding transcription factor)
GAL3ST1	-1.30	Protein coding	Ras-related C3 botulinum toxin substrate 3 (rho family small GTP binding protein Rac3)
TMEM191C	-1.30	LincRNA	Protease serine 56
RPUSD1	-1.30	Protein coding	Ankyrin repeat domain 9
MRPL4	-1.30	Protein coding	GIPC PDZ domain containing family member 1
LRRC45	-1.30	Protein coding	Serine/threonine kinase 11
GAS2L1	-1.30	Protein coding	Adrenoceptor $\alpha$ 2C
DUSP15	-1.30	Protein coding	Pleckstrin homology-like domain family B member 3
RPL13P12	-1.30	Processed pseudogene	N-acetyltransferase 14 (GCN5-related putative)
CTD-2026D20.2	-1.30	Antisense	PRELI domain containing 1
RP11-680F8.3	-1.30	Antisense	ORAI calcium release-activated calcium modulator 1
HAR1A	-1.30	LincRNA	Hydroxysteroid (17- $\beta$ ) dehydrogenase 14
RP11-61J19.5	-1.30	LincRNA	Josephin domain containing 2

Table SIII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
GFER	-1.30	Protein coding	SHANK associated RH domain interactor
AC074212.5	-1.30	Processed transcript	NADH dehydrogeNAse (ubiquinone) 1 $\alpha$ subcomplex 4-like 2
HNRNPA1P16	-1.30	Processed pseudogene	NA
GSX1	-1.29	Protein coding	UBX domain protein 6
RABL6	-1.29	Protein coding	Chromosome 9 open reading frame 172
ZNF524	-1.29	Protein coding	Scribbled plaNAr cell polarity protein
CTSD	-1.29	Protein coding	Mitogen-activated protein kiNAse kiNAse 2
ABHD17A	-1.29	Protein coding	Apolipoprotein E
TPBGL	-1.29	Protein coding	Keratin 81 type II
RP11-15E18.1	-1.29	Antisense	Vacuolar protein sorting 28 homolog (S. Cerevisiae)
FAM131C	-1.28	Protein coding	Amyloid $\beta$ (A4) precursor protein-binding family A member 3
RHOD	-1.28	Protein coding	Dishevelled segment polarity protein 1
GAMT	-1.28	Protein coding	Thioesterase superfamily member 6
KRT3	-1.28	Protein coding	ATP synthase H+ transporting mitochondrial F1 complex delta subunit
KRTCAP2	-1.28	Protein coding	Inositol-trisphosphate 3-kiNAse A
RFNG	-1.28	Protein coding	Family with sequence similarity 229 member A
MIIP	-1.28	Protein coding	Docking protein 7
RP11-1275H24.1	-1.28	LincRNA	SIX homeobox 5
RABEP2	-1.28	Protein coding	Chromosome 2 open reading frame 81
UBBP4	-1.28	Transcribed unprocessed pseudogene	Nudix hydrolase 14
PODNL1	-1.28	Protein coding	Interleukin 17 receptor E
RP11-81A22.4	-1.28	Tec	AT-rich interaction domain 5A
CLASRP	-1.27	Protein coding	MAS related GPR family member F
TMEM151A	-1.27	Protein coding	Plakophilin 3
ESPN	-1.27	Protein coding	NA
RASIP1	-1.27	Protein coding	Calmodulin regulated spectrin associated protein family member 3
C20orf166-AS1	-1.27	Antisense	NA
B3GNT4	-1.27	Protein coding	RAB3A member RAS oncogene family
RFXANK	-1.27	Protein coding	Keratin 17 type I
IRX3	-1.26	Protein coding	Electron-transfer-flavoprotein $\beta$ polypeptide
AC007969.5	-1.26	Processed pseudogene	Chromosome 20 open reading frame 195
NR2F6	-1.26	Protein coding	Family with sequence similarity 183 member A
PHLDA3	-1.26	Protein coding	Heat shock protein family B (small) member 1
C19orf24	-1.26	Protein coding	Dipeptidyl-peptidase 7
CTC-273B12.10	-1.26	LincRNA	MAD2 mitotic arrest deficient-like 2 (yeast)
CDC42EP5	-1.26	Protein coding	FCH domain only 1
CPTP	-1.26	Protein coding	NeuroNAI PAS domain protein 1
NDUFA11	-1.26	Protein coding	Proline rich 36
PRR25	-1.26	Protein coding	SyNAptotagmin like 1
TIGD5	-1.26	Protein coding	Cell division cycle 34
UBTD1	-1.26	Protein coding	Chromosome 9 open reading frame 142
TPSP2	-1.25	Unprocessed pseudogene	Microtubule associated protein 1S
CLEC11A	-1.25	Protein coding	Histocompatibility (minor) HA-1
SSBP4	-1.25	Protein coding	Phosphoglycolate phosphatase
PROC	-1.25	Protein coding	Hydroxysteroid (11- $\beta$ ) dehydrogeNAse 1-like
LRRC26	-1.25	Protein coding	HSPA (heat shock 70kda) binding protein cytoplasmic cochaperone 1
MAFG-AS1	-1.25	Antisense	Trab domain containing
AURKAIP1	-1.25	Protein coding	Aspartate $\beta$ -hydroxylase domain containing 1
MISP	-1.25	Protein coding	LDL receptor related protein 3
C1orf122	-1.25	Protein coding	Procollagen C-endopeptidase enhancer

Table SIII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
NANOS3	-1.25	Protein coding	Nudix hydrolase 18
FAM195B	-1.25	Protein coding	Fanconi anemia core complex associated protein 20
VASN	-1.25	Protein coding	GH3 domain containing
OSGIN1	-1.24	Protein coding	Chromosome transmission fidelity factor 18
SSC4D	-1.24	Protein coding	Zinc finger DHHC-type containing 1
NPDC1	-1.24	Protein coding	Nuclear receptor subfamily 4 group A member 2
RP11-496I9.1	-1.24	Antisense	ADP ribosylation factor like gtpase 2
GRASP	-1.24	Protein coding	Ydjc homolog (bacterial)
CA9	-1.24	Protein coding	Platelet activating factor acetylhydrolase 1b catalytic subunit 3
PHLDA2	-1.24	Protein coding	H1 histone family member X
FLYWCH2	-1.24	Protein coding	MPV17 mitochondrial membrane protein-like 2
RP11-783K16.13	-1.24	LncRNA	Iduronidase α-L-
CD320	-1.24	Protein coding	NADPH oxidase activator 1
CTD-2555C10.3	-1.24	LncRNA	Adrenomedullin 5 (putative)
HDAC10	-1.24	Protein coding	C2 calcium-dependent domain containing 4C
LIMD2	-1.24	Protein coding	Small nuclear ribonucleoprotein polypeptide A
MRPL41	-1.23	Protein coding	Sjogren syndrome nuclear autoantigen 1
PNMT	-1.23	Protein coding	Chromosome 20 open reading frame 27
ANKRD65	-1.23	Protein coding	Zinc finger protein 414
KLC3	-1.23	Protein coding	Carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 7
GLTPD2	-1.23	Protein coding	B-14-N-acetyl-galactosaminyl transferase 4
DOHH	-1.23	Protein coding	Unc-93 homolog B1 (C. Elegans)
BX322559.3	-1.23	Antisense	Insulin like growth factor binding protein 6
RCN3	-1.23	Protein coding	Forkhead box O6
SNX22	-1.23	Protein coding	Chromosome 9 open reading frame 16
1-Sep	-1.23	Protein coding	Polyamine-modulated factor 1
PLEKHH3	-1.23	Protein coding	Leucine rich repeat containing 10B
TSR3	-1.23	Protein coding	Interferon regulatory factor 2 binding protein 1
KIFC2	-1.23	Protein coding	Solute carrier family 9 subfamily A (NHE3 cation proton antiporter 3) member 3 regulator 1
CD14	-1.23	Protein coding	Zinc finger protein 837
AGAP9	-1.23	Protein coding	Mesoderm posterior blhh transcription factor 1
SPATC1L	-1.22	Protein coding	Proprotein convertase subtilisin/kexin type 4
TYMP	-1.22	Protein coding	Zinc finger protein 787
TCEA2	-1.22	Protein coding	RAS dexamethasone-induced 1
WTIP	-1.22	Protein coding	Macrophage stimulating 1-like
SNRPB	-1.22	Protein coding	MTOR associated protein LST8 homolog
RAC1P2	-1.22	Processed pseudogene	MAX dimerization protein 3
ROGDI	-1.22	Protein coding	FK506 binding protein 8
WDR34	-1.22	Protein coding	Small nuclear RNA activating complex polypeptide 2
ARMC5	-1.22	Protein coding	Complement component 8 γ polypeptide
ENDOG	-1.22	Protein coding	Zinc finger protein 358
C19orf60	-1.22	Protein coding	NA
RP11-385F7.1	-1.22	LncRNA	Elastin microfibril interfacer 1
CRLF1	-1.22	Protein coding	Chordin
TMEM205	-1.22	Protein coding	Uncharacterized LOC284365
SPATA2L	-1.22	Protein coding	Isochorismatase domain containing 2
WASH1	-1.22	Protein coding	Family with sequence similarity 132 member B
ZNF775	-1.21	Protein coding	Receptor accessory protein 6
SEMA6B	-1.21	Protein coding	ER membrane protein complex subunit 10
DHDH	-1.21	Protein coding	Notum pectiNAcetylesterase homolog (Drosophila)
RAB3IL1	-1.21	Protein coding	Chromosome 7 open reading frame 50
CTD-3035K23.7	-1.21	Antisense	Coagulation factor XII (Hageman factor)
ARSA	-1.21	Protein coding	NA
RBM42	-1.21	Protein coding	Crystallin β A2
TK1	-1.21	Protein coding	ZoNA pellucida glycoprotein 3 (sperm receptor)

Table III. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
NALT1	-1.21	Antisense	Neurexophilin 4
CTC-575D19.1	-1.21	Processed pseudogene	Chondroitin polymerizing factor
TFPT	-1.21	Protein coding	Proline rich 29
CALML6	-1.21	Protein coding	GTP binding protein 6 (putative)
LINC01311	-1.21	Antisense	Glutamate receptor ionotropic kaiNAte 5
FAM234A	-1.21	Protein coding	NA
WNT11	-1.21	Protein coding	Ribosomal protein S6 kiNAse 70kda polypeptide 2
SDF2L1	-1.21	Protein coding	Artemin
TBC1D10C	-1.21	Protein coding	NA
C14orf80	-1.20	Protein coding	Coiled-coil domain containing 78
RPL7P1	-1.20	Processed pseudogene	Peroxisomal biogenesis factor 14
BRICD5	-1.20	Protein coding	Mucin 12 cell surface associated
PIANP	-1.20	Protein coding	Poly(ADP-ribose) polymerase family member 10
TMEM191B	-1.20	Protein coding	Leucine-rich colipase like 1
NOC4L	-1.20	Protein coding	Gap junction protein γ 2
KRT83	-1.20	Protein coding	Protein phosphatase 1 regulatory subunit 35
TMEM132A	-1.20	Protein coding	Presenilin enhancer γ secretase subunit
TMIE	-1.20	Protein coding	NA
MRPL12	-1.20	Protein coding	Creatine kiNAse brain
CLDN9	-1.20	Protein coding	Mitogen-activated protein kiNAse 15
DOCK9-AS2	-1.20	Antisense	Insulin like growth factor binding protein 2
ASPSCR1	-1.20	Protein coding	Chromosome 16 open reading frame 74
SYT8	-1.20	Protein coding	NK2 homeobox 8
NKX2-8	-1.20	Protein coding	SyNAptotagmin 8
C16orf74	-1.20	Protein coding	Alveolar soft part sarcoma chromosome region candidate 1
IGFBP2	-1.20	Protein coding	DOCK9 antisense RNA 2 (head to head)
MAPK15	-1.20	Protein coding	Claudin 9
CKB	-1.20	Protein coding	Mitochondrial ribosomal protein L12
RP11-274B21.3	-1.19	Processed pseudogene	Transmembrane inner ear
PSENEN	-1.19	Protein coding	Transmembrane protein 132A
PPP1R35	-1.19	Protein coding	Keratin 83 type II
GJC2	-1.19	Protein coding	Nucleolar complex associated 4 homolog
LRCOL1	-1.19	Protein coding	PILR α associated neural protein
PARP10	-1.19	Protein coding	Transmembrane protein 191B
MUC12	-1.19	Protein coding	BRICHOS domain containing 5
PEX14	-1.19	Protein coding	Ribosomal protein L7 pseudogene 1
CCDC78	-1.19	Protein coding	Chromosome 14 open reading frame 80
RP11-277B15.3	-1.19	LncRNA	TBC1 domain family member 10C
ARTN	-1.19	Protein coding	Stromal cell-derived factor 2-like 1
RPS6KB2	-1.19	Protein coding	Wingless-type MMTV integration site family member 11
KB-1269D1.8	-1.19	Unprocessed pseudogene	Family with sequence similarity 234 member A
GRIK5	-1.19	Protein coding	Long intergenic non-protein coding RNA 1311
GTPBP6	-1.19	Protein coding	Calmodulin like 6
PRR29	-1.18	Protein coding	TCF3 (E2A) fusion partner (in childhood Leukemia)
CHPF	-1.18	Protein coding	NA
NXPH4	-1.18	Protein coding	NOTCH1 associated lncRNA in T-cell acute lymphoblastic leukemia 1
ZP3	-1.18	Protein coding	Thymidine kiNAse 1 soluble
RP11-616M22.5	-1.18	Sense intronic	RNA binding motif protein 42
CRYBA2	-1.18	Protein coding	Arylsulfatase A
F12	-1.18	Protein coding	NA
C7orf50	-1.18	Protein coding	RAB3A interacting protein (rabin3)-like 1
NOTUM	-1.18	Protein coding	Dihydrodiol dehydrogeNAse (dimeric)
EMC10	-1.18	Protein coding	Sema domain transmembrane domain (TM) and cytoplasmic domain (semaphorin) 6B
REEP6	-1.18	Protein coding	Zinc finger protein 775
FAM132B	-1.18	Protein coding	WAS protein family homolog 1

Table SIII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
ISOC2	-1.18	Protein coding	Spermatogenesis associated 2-like
MGC45922	-1.18	LincRNA	Transmembrane protein 205
CHRD	-1.18	Protein coding	Cytokine receptor-like factor 1
EMILIN1	-1.18	Protein coding	NA
RP11-670E13.6	-1.18	LincRNA	Chromosome 19 open reading frame 60
ZNF358	-1.18	Protein coding	Endonuclease G
C8G	-1.18	Protein coding	Armadillo repeat containing 5
SNAPC2	-1.18	Protein coding	WD repeat domain 34
FKBP8	-1.18	Protein coding	Rogdi homolog
MXD3	-1.17	Protein coding	Ras-related C3 botulinum toxin substrate 1 pseudogene 2
MLST8	-1.17	Protein coding	Small nuclear ribonucleoprotein polypeptides B and B1
MST1L	-1.17	Transcribed unprocessed pseudogene	Wilms tumor 1 interacting protein
RASD1	-1.17	Protein coding	Transcription elongation factor A (SII) 2
ZNF787	-1.17	Protein coding	Thymidine phosphorylase
PCSK4	-1.17	Protein coding	Spermatogenesis and centriole associated 1-like
MESP1	-1.17	Protein coding	Arfgap with gtpase domain ankyrin repeat and PH domain 9
ZNF837	-1.17	Protein coding	CD14 molecule
SLC9A3R1	-1.17	Protein coding	Kinesin family member C2
IRF2BP1	-1.17	Protein coding	TSR3 20S rrNA accumulation homolog (S. Cerevisiae)
LRRC10B	-1.17	Protein coding	Pleckstrin homology myth4 and FERM domain containing H3
PMF1	-1.17	Protein coding	Septin 1
C9orf16	-1.17	Protein coding	Sorting nexin 22
FOXO6	-1.17	Protein coding	Reticulocalbin 3
IGFBP6	-1.17	Protein coding	NA
UNC93B1	-1.17	Protein coding	Deoxyhypusine hydroxylase/monooxygeNase
B4GALNT4	-1.17	Protein coding	Glycolipid transfer protein domain containing 2
CHST7	-1.17	Protein coding	Kinesin light chain 3
ZNF414	-1.17	Protein coding	Phenylethanolamine N-methyltransferase
C20orf27	-1.17	Protein coding	Ankyrin repeat domain 65
SSNA1	-1.16	Protein coding	Mitochondrial ribosomal protein L41
SNRPA	-1.16	Protein coding	LIM domain containing 2
C2CD4C	-1.16	Protein coding	Histone deacetylase 10
ADM5	-1.16	Protein coding	NA
NOXA1	-1.16	Protein coding	CD320 molecule
IDUA	-1.16	Protein coding	NA
MPV17L2	-1.16	Protein coding	FLYWCH family member 2
H1FX	-1.16	Protein coding	Pleckstrin homology-like domain family A member 2
PAFAH1B3	-1.16	Protein coding	Carbonic anhydrase IX
YDJC	-1.16	Protein coding	GRP1 (general receptor for phosphoinositides 1)-associated scaffold protein
ARL2	-1.16	Protein coding	NA
NR4A2	-1.16	Protein coding	Neural proliferation differentiation and control 1
ZDHHC1	-1.16	Protein coding	Scavenger receptor cysteine rich family 4 domains
CHTF18	-1.16	Protein coding	Oxidative stress induced growth inhibitor 1
GHDC	-1.16	Protein coding	Vasorin
FAAP20	-1.16	Protein coding	Family with sequence similarity 195 member B
NUDT18	-1.16	Protein coding	NA nos homolog 3 (Drosophila)
PCOLCE	-1.16	Protein coding	Chromosome 1 open reading frame 122
LRP3	-1.16	Protein coding	Mitotic spindle positioning
ASPHD1	-1.16	Protein coding	Aurora kinase A interacting protein 1
TRABD	-1.16	Protein coding	MAFG antisense RNA 1 (head to head)
HSPBP1	-1.15	Protein coding	Leucine rich repeat containing 26
HSD11B1L	-1.15	Protein coding	Protein C iNActivator of coagulation factors Va and viii a
PGP	-1.15	Protein coding	Single stranded DNA binding protein 4

Table SIII. Continued.

Gene name	log <sub>2</sub> fold change	Gene type	Full name of gene
HMHA1	-1.15	Protein coding	C-type lectin domain family 11 member A
MAP1S	-1.15	Protein coding	Tryptase pseudogene 2
C9orf142	-1.15	Protein coding	Ubiquitin domain containing 1
CDC34	-1.15	Protein coding	Tigger transposable element derived 5
SYTL1	-1.15	Protein coding	Proline rich 25
PRR36	-1.15	Protein coding	NADH:ubiquinone oxidoreductase subunit A11
NPAS1	-1.15	Protein coding	Ceramide-1-phosphate transfer protein
FCHO1	-1.15	Protein coding	CDC42 effector protein (Rho gtpase binding) 5
MAD2L2	-1.15	Protein coding	NA
DPP7	-1.15	Protein coding	Chromosome 19 open reading frame 24
HSPB1	-1.15	Protein coding	Pleckstrin homology-like domain family A member 3
FAM183A	-1.15	Protein coding	Nuclear receptor subfamily 2 group F member 6
C20orf195	-1.15	Protein coding	NA
ETFB	-1.15	Protein coding	Iroquois homeobox 3
KRT17	-1.15	Protein coding	Regulatory factor X associated ankyrin containing protein
RAB3A	-1.15	Protein coding	UDP-glcNAc:βgal β-13-N-acetylglucosaminyltransferase 4
RP11-1348G14.8	-1.15	Antisense	C20orf166 antisense RNA 1
CAMSAP3	-1.15	Protein coding	Ras interacting protein 1
RP11-111M22.4	-1.15	LincRNA	Espin
PKP3	-1.14	Protein coding	Transmembrane protein 151A
MRGPRF	-1.14	Protein coding	CLK4-associating serine/arginine rich protein
ARID5A	-1.14	Protein coding	NA
IL17RE	-1.14	Protein coding	Podocan-like 1
NUDT14	-1.14	Protein coding	Ubiquitin B pseudogene 4
C2orf81	-1.14	Protein coding	Rabaptin RAB gtpase binding effector protein 2
SIX5	-1.14	Protein coding	NA
DOK7	-1.14	Protein coding	Migration and invasion inhibitory protein
FAM229A	-1.14	Protein coding	RFNG O-fucosylpeptide 3-β-N-acetylglucosaminyltransferase
ITPKA	-1.14	Protein coding	Keratinocyte associated protein 2
ATP5D	-1.14	Protein coding	Keratin 3 type II
THEM6	-1.14	Protein coding	Guanidinoacetate N-methyltransferase
DVL1	-1.14	Protein coding	Ras homolog family member D
APBA3	-1.14	Protein coding	Family with sequence similarity 131 member C
VPS28	-1.14	Protein coding	NA
KRT81	-1.14	Protein coding	Trophoblast glycoprotein-like
APOE	-1.14	Protein coding	Abhydrolase domain containing 17A
MAP2K2	-1.14	Protein coding	Cathepsin D
SCRIB	-1.14	Protein coding	Zinc finger protein 524
C9orf172	-1.14	Protein coding	RAB member RAS oncogene family-like 6
UBXN6	-1.14	Protein coding	GS homeobox 1
AC009014.3	-1.13	LincRNA	Heterogeneous nuclear ribonucleoprotein A1 pseudogene 16
NDUFA4L2	-1.13	Protein coding	NA
SHARPIN	-1.13	Protein coding	Growth factor augmenter of liver regeneration
JOSD2	-1.13	Protein coding	NA
HSD17B14	-1.13	Protein coding	Highly accelerated region 1A (non-protein coding)
ORAI1	-1.13	Protein coding	NA
PRELID1	-1.13	Protein coding	NA
NAT14	-1.13	Protein coding	Ribosomal protein L13 pseudogene 12
PHLDB3	-1.13	Protein coding	Dual specificity phosphatase 15
ADRA2C	-1.13	Protein coding	Growth arrest specific 2 like 1
STK11	-1.13	Protein coding	Leucine rich repeat containing 45
GIPC1	-1.13	Protein coding	Mitochondrial ribosomal protein L4
ANKRD9	-1.13	Protein coding	RNA pseudouridylate synthase domain containing 1
PRSS56	-1.13	Protein coding	Galactose-3-O-sulfotransferase 1
RAC3	-1.13	Protein coding	Transmembrane protein 191C
MAZ	-1.13	Protein coding	Cyclin-dependent kinase inhibitor 1C (p57 Kip2)
COL9A3	-1.13	Protein coding	NA

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
EVA1B	-1.12	Protein coding	CDC42 effector protein (Rho gtpase binding) 2
ENKD1	-1.12	Protein coding	NA
RP11-425L10.1	-1.12	Processed pseudogene	Cytochrome b-245 $\alpha$ polypeptide
ALKBH7	-1.12	Protein coding	Family with sequence similarity 98 member C
GATA6	-1.12	Protein coding	NA
KCNG1	-1.12	Protein coding	NA
PPP1R14BP3	-1.12	Processed pseudogene	Zinc finger protein 580
RENBP	-1.12	Protein coding	Atpase family AAA domain containing 3A
ISYNA1	-1.12	Protein coding	Apolipoprotein M
UCN	-1.12	Protein coding	MFI2 antisense RNA 1
CCDC12	-1.12	Protein coding	NA
BIRC7	-1.12	Protein coding	NA
BCL7C	-1.12	Protein coding	Ectonucleoside triphosphate diphosphohydrolase 8
BOP1	-1.12	Protein coding	Bardet-Biedl syndrome 5
RP11-560J1.2	-1.12	LncRNA	Ras association (ralgds/AF-6) domain family (N-termiNAL) member 7
ASCL2	-1.12	Protein coding	Transmembrane and ubiquitin-like domain containing 1
CCDC61	-1.12	Protein coding	EGF-like-domain multiple 7
B3GALT4	-1.12	Protein coding	Family with sequence similarity 43 member B
MSLN	-1.12	Protein coding	Nitric oxide synthase interacting protein
MPST	-1.12	Protein coding	Sex hormone-binding globulin
LRRC73	-1.12	Protein coding	NA
LRRC56	-1.12	Protein coding	Claudin 3
RNF223	-1.12	Protein coding	Proline-rich transmembrane protein 4
COMTD1	-1.12	Protein coding	Neuraminidase 4 (sialidase)
FERMT3	-1.12	Protein coding	MAN1B1 antisense RNA 1 (head to head)
TMEM52	-1.12	Protein coding	Family with sequence similarity 171 member A2
POLD2	-1.12	Protein coding	Polymerase (RNA) mitochondrial (DNA directed)
EXD3	-1.11	Protein coding	Chromosome 1 open reading frame 127
CEBDP	-1.11	Protein coding	Calcium release activated channel regulator 2B
NMB	-1.11	Protein coding	T-cell leukemia homeobox 1
C1orf233	-1.11	Protein coding	Proline rich 13 pseudogene 5
SAC3D1	-1.11	Protein coding	3-oxoacid coa-transferase 2 pseudogene 1
SCAND1	-1.11	Protein coding	Methyl-cpg binding domain protein 3
EFNA3	-1.11	Protein coding	Leucine rich repeat containing 4B
AMN	-1.11	Protein coding	Syntaxin binding protein 2
SCAF1	-1.11	Protein coding	Chromodomain helicase DNA binding protein 5
C1QL4	-1.11	Protein coding	Rhomboid veinlet-like 1 (Drosophila)
SIPA1	-1.11	Protein coding	Family with sequence similarity 173 member A
DBP	-1.11	Protein coding	Chromosome 21 open reading frame 33
IER5L	-1.11	Protein coding	Cartilage intermediate layer protein 2
RILP	-1.11	Protein coding	Tumor protein p53 inducible protein 13
FASTK	-1.11	Protein coding	Neuropeptide W
EIF3G	-1.11	Protein coding	SKI family transcriptioNAL corepressor 1
PRR5	-1.11	Protein coding	Mindbomb E3 ubiquitin protein ligase 2
ZNF444	-1.11	Protein coding	Tetraspanin 10
SELO	-1.11	Protein coding	Chromosome 9 open reading frame 173
C16orf13	-1.10	Protein coding	Small nucleolar RNA H/ACA box 71C
LINC01503	-1.10	LncRNA	Htra serine peptidase 3
LAGE3	-1.10	Protein coding	Alkb homolog 4 lysine demethylase
HRAS	-1.10	Protein coding	Jun D proto-oncogene
RP13-516M14.10	-1.10	Antisense	Meteorin glial cell differentiation regulator
FZD9	-1.10	Protein coding	Matrix metallopeptidase 17
RASL10A	-1.10	Protein coding	NA
PRAP1	-1.10	Protein coding	Von Willebrand factor C and EGF domains
RPS6KA4	-1.10	Protein coding	NA
PPP1R32	-1.10	Protein coding	KISS1 receptor

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
PODXL2	-1.10	Protein coding	Interleukin 32
RP11-573D15.2	-1.10	LincRNA	Vacuolar protein sorting 37 homolog D ( <i>S. Cerevisiae</i> )
C2orf82	-1.10	Protein coding	WD repeat domain 18
CARD9	-1.10	Protein coding	WD repeat domain 24
MNX1	-1.10	Protein coding	NA
FGF3	-1.10	Protein coding	Eukaryotic translation elongation factor 1 $\alpha$ 2
PWWP2B	-1.09	Protein coding	Guanine nucleotide binding protein (G protein) $\beta$ polypeptide 1-like
RP11-452G18.2	-1.09	Processed pseudogene	Calcium channel voltage-dependent $\beta$ subunit associated regulatory protein
PKN1	-1.09	Protein coding	NA
RAB1B	-1.09	Protein coding	Programmed cell death 1
DCXR	-1.09	Protein coding	Tripartite motif containing 54
FAM195A	-1.09	Protein coding	NA
CABP1	-1.09	Protein coding	SLC2A4 regulator
RP5-882C2.2	-1.09	Antisense	Nucleotide binding protein 2
RP5-1085F17.3	-1.09	LincRNA	Microrna 429
RNF126	-1.09	Protein coding	RAB11B member RAS oncogene family
SELM	-1.09	Protein coding	Lymphoblastic leukemia associated hematopoiesis regulator 1
AGPAT2	-1.09	Protein coding	Hes family bHLH transcription factor 6
KCNJ4	-1.09	Protein coding	Family with sequence similarity 166 member A
DRAP1	-1.09	Protein coding	Interleukin 17C
RNF208	-1.09	Protein coding	Rhophilin rho gtpase binding protein 1
DUSP9	-1.09	Protein coding	Cytosolic thiouridylate subunit 2 homolog ( <i>S. Pombe</i> )
DUS1L	-1.09	Protein coding	Epsin 1
PCAT6	-1.09	Antisense	Leucine rich repeat and fibronectin type III domain containing 4
ADAMTSL2	-1.09	Protein coding	Eukaryotic translation initiation factor 5A-like 1
POLR2E	-1.09	Protein coding	Ribosomal protein S2 pseudogene 46
PRTN3	-1.09	Protein coding	Major facilitator superfamily domain containing 3
NUDT22	-1.09	Protein coding	Stratifin
CHST13	-1.09	Protein coding	NME/NM23 nucleoside diphosphate kinase 3
ENTPD2	-1.09	Protein coding	Anti-Mullerian hormone
FBXW5	-1.09	Protein coding	Colipase like 2
VPS9D1	-1.09	Protein coding	Uncharacterized protein LOC113230
TLE2	-1.09	Protein coding	NA
ARHGDIG	-1.08	Protein coding	Chromosome 19 open reading frame 35
TPM2	-1.08	Protein coding	Coiled-coil domain containing 106
SPSB2	-1.08	Protein coding	Tryptase $\alpha/\beta$ 1
TOMM40	-1.08	Protein coding	SAGA complex associated factor 29
SEMA3B	-1.08	Protein coding	Transmembrane protein 238
B9D2	-1.08	Protein coding	Transforming growth factor $\beta$ receptor III like
PCBP1	-1.08	Protein coding	Aquaporin 5
MVD	-1.08	Protein coding	NA
UBALD1	-1.08	Protein coding	Complement component 4A (Rodgers blood group)
RLTPR	-1.08	Protein coding	Glutamate receptor ionotropic N-methyl D-aspartate 2C
IFITM10	-1.08	Protein coding	F-box protein 2
KCTD17	-1.08	Protein coding	Coiled-coil domain containing 157
FGF17	-1.08	Protein coding	SH2B adaptor protein 2
FSTL3	-1.08	Protein coding	NA
ELOF1	-1.08	Protein coding	NA
LMF2	-1.08	Protein coding	NA
SBK3	-1.08	Protein coding	Complement component 1 q subcomponent-like 1
RPL28	-1.08	Protein coding	Somatostatin receptor 5
HCN2	-1.08	Protein coding	Transmembrane protein 121
C19orf25	-1.08	Protein coding	NA
MRPL28	-1.07	Protein coding	Endothelial cell adhesion molecule

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
REEP2	-1.07	Protein coding	Zinc finger HIT-type containing 2
ARC	-1.07	Protein coding	NA
HEXDC	-1.07	Protein coding	Phosphatase orphan 1
SPHK1	-1.07	Protein coding	Core-binding factor runt domain $\alpha$ subunit 2; translocated to 3
MDF1	-1.07	Protein coding	Basic helix-loop-helix family member e23
SORBS3	-1.07	Protein coding	Long intergenic non-protein coding RNA 1089
SPPL2B	-1.07	Protein coding	Chloride intracellular channel 3
RUVBL2	-1.07	Protein coding	Phospholipid phosphatase related 3
PITX1	-1.07	Protein coding	NA
H2AFX	-1.07	Protein coding	Serine hydrolase-like (pseudogene)
CORO1A	-1.07	Protein coding	NA
TOLLIP-AS1	-1.07	Antisense	Carnitine palmitoyltransferase 1C
PRRX2	-1.07	Protein coding	Chemokine (C-C motif) ligand 20
FAAP100	-1.07	Protein coding	Transmembrane 4 L six family member 19
PALM	-1.07	Protein coding	Kelch like family member 30
ABHD8	-1.07	Protein coding	Kringle containing transmembrane protein 2
KLF14	-1.07	Protein coding	Von Willebrand factor A domain containing 1
BBC3	-1.07	Protein coding	Cytosolic thiouridylase subunit 1
C11orf96	-1.07	Protein coding	Proline rich 7 (syNaptic)
HIGD2A	-1.07	Protein coding	NA
SFRP5	-1.07	Protein coding	RNA 7SL cytoplasmic 236 pseudogene
TWF2	-1.07	Protein coding	NA
TMEM158	-1.07	Protein coding	Family with sequence similarity 212 member A
RP1-170O19.24	-1.07	Sense intronic	Coiled-coil domain containing 85B
CTB-50L17.10	-1.07	Protein coding	Apolipoprotein C-I
GALK1	-1.07	Protein coding	Tryptase $\beta$ 2 (gene/pseudogene)
CDT1	-1.07	Protein coding	NA
ZFPM1	-1.07	Protein coding	Cysteine-rich protein 2
PHKG2	-1.07	Protein coding	Coiled-coil domain containing 94
AKT1S1	-1.07	Protein coding	Shisa family member 8
PLA2G2E	-1.07	Protein coding	Exocyst complex component 3-like 1
RPL18AP3	-1.06	Processed pseudogene	NA
BRAT1	-1.06	Protein coding	Solute carrier family 9 subfamily A (NHE3 cation proton antiporter 3) member 3 regulator 2
SCNN1D	-1.06	Protein coding	Profilin 1 pseudogene 1
ARVCF	-1.06	Protein coding	Cadherin 22 type 2
FJX1	-1.06	Protein coding	Cell cycle exit and neuroNAI differentiation 1
PTMS	-1.06	Protein coding	NA
LINC00176	-1.06	LncRNA	Chromosome 8 open reading frame 82
SH2D3A	-1.06	Protein coding	Proline rich 22
PIM3	-1.06	Protein coding	Polycystic kidney disease 1 (autosomal domiNAnt) pseudogene 6
IRF7	-1.06	Protein coding	Aldehyde dehydrogeNAse 16 family member A1
HPS6	-1.06	Protein coding	FYVE rhogef and PH domain containing 3
TRIM11	-1.06	Protein coding	Neurturin
DRD4	-1.06	Protein coding	Calcyon neuron-specific vesicular protein
NYAP1	-1.06	Protein coding	INAF-motif containing 1
ZNF768	-1.06	Protein coding	Tumor necrosis factor receptor superfamily member 18
AC007383.3	-1.06	LncRNA	Complement factor properdin
GDPD3	-1.06	Protein coding	Azurocidin 1
LRWD1	-1.06	Protein coding	Long intergenic non-protein coding RNA 1135
USF2	-1.06	Protein coding	NA
CCDC9	-1.06	Protein coding	Ribosomal protein S7 pseudogene 10
FAM110A	-1.06	Protein coding	Transmembrane protease serine 4
ZNF653	-1.06	Protein coding	WWTR1 antisense RNA 1
THAP7	-1.06	Protein coding	STAG3L5P-PVRIG2P-PILRB readthrough
SF3A2	-1.06	Protein coding	NA

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
ZNF784	-1.06	Protein coding	SRY-box 18
GSDMD	-1.06	Protein coding	Hydroxyacylglutathione hydrolase-like
KCNQ1DN	-1.06	Antisense	NA
STARD10	-1.06	Protein coding	Cysteine-rich tail protein 1
TSSC4	-1.06	Protein coding	Tubulin polyglutamylase complex subunit 1
ADRM1	-1.06	Protein coding	Reticulon 4 receptor
AGTRAP	-1.06	Protein coding	Zinc finger protein 579
S1PR4	-1.06	Protein coding	ADP ribosylation factor 4 pseudogene 2
STAP2	-1.06	Protein coding	SIX homeobox 2
URAD	-1.06	Protein coding	Hemoglobin subunit epsilon 1
METRNL	-1.06	Protein coding	Hes family bHLH transcription factor 4
GLTSCR2	-1.05	Protein coding	F-box and leucine-rich repeat protein 15
CERS1	-1.05	Protein coding	Actin like 10
GDF15	-1.05	Protein coding	NA
IDH3G	-1.05	Protein coding	GTF2I repeat domain containing 2
PCBP4	-1.05	Protein coding	NA
FN3K	-1.05	Protein coding	NA
ECI1	-1.05	Protein coding	IDH1 antisense RNA 1
ZNF428	-1.05	Protein coding	NA
DAPK3	-1.05	Protein coding	Tropomodulin I type 2 (skeletal fast)
KATNB1	-1.05	Protein coding	Stabilin 1
PRPF31	-1.05	Protein coding	Ribosomal protein L41 pseudogene 5
ANGPTL4	-1.05	Protein coding	NA
PPP1R37	-1.05	Protein coding	Zinc finger protein 205
WDR13	-1.05	Protein coding	NA
MADCAM1	-1.05	Protein coding	Ubiquitin conjugating enzyme E2Q family-like 1
TCEB2	-1.05	Protein coding	Protein phosphatase 1 regulatory subunit 16A
LTK	-1.05	Protein coding	Heparan sulfate-glucosamine 3-sulfotransferase 6
RECQL4	-1.05	Protein coding	Reticulon 4 receptor-like 2
AC241585.2	-1.05	Protein coding	Cbp/p300-interacting transactivator with Glu/Asp rich carboxy-terminal domain 4
MAP3K10	-1.05	Protein coding	Transmembrane protein 88
SHC2	-1.05	Protein coding	Tumor necrosis factor receptor superfamily member 13C
XRCC3	-1.05	Protein coding	NA
ACD	-1.05	Protein coding	GTP cyclohydrolase I feedback regulator
FBXW9	-1.05	Protein coding	Synuclein β
2-Mar	-1.05	Protein coding	MicrorNA 6784
SLC39A3	-1.05	Protein coding	NA
CCDC167	-1.05	Protein coding	SyNaptotagmin 3
SCN1B	-1.05	Protein coding	VGF nerve growth factor inducible
ARHGEF16	-1.05	Protein coding	Tripartite motif containing 74
IGSF21	-1.05	Protein coding	Glutathione peroxidase pseudogene 1
SIRT6	-1.05	Protein coding	Scleraxis bHLH transcription factor
LTB	-1.05	Protein coding	C2 calcium-dependent domain containing 4D
IRF3	-1.05	Protein coding	Chromosome 19 open reading frame 73
EFNA2	-1.05	Protein coding	Cornichon family AMPA receptor auxiliary protein 2
PIGQ	-1.05	Protein coding	CD7 molecule
RELL2	-1.05	Protein coding	Calcium channel voltage-dependent γ subunit 4
SNCG	-1.04	Protein coding	Lymphocyte-specific protein 1
MRPL43	-1.04	Protein coding	Fibrillarin-like 1
MYL9	-1.04	Protein coding	Dishevelled-binding antagonist of β-catenin 2
SP5	-1.04	Protein coding	NA
HSF1	-1.04	Protein coding	NA
LMTK3	-1.04	Protein coding	Alkaline phosphatase liver/bone/kidney
SLC39A4	-1.04	Protein coding	NA
GNB2	-1.04	Protein coding	Granzyme M
COX16	-1.04	Protein coding	Protein kinase Nase domain containing cytoplasmic

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
HPN	-1.04	Protein coding	Hemoglobin subunit theta 1
SLC52A2	-1.04	Protein coding	Cortexin 1
ARFGAP1	-1.04	Protein coding	Luteinizing hormone $\beta$ polypeptide
PDF	-1.04	Protein coding	Adenosine deamiNAse trNA-specific 3
NAPRT	-1.04	Protein coding	Complement component 2
TRPT1	-1.04	Protein coding	Thymosin $\beta$ 4 X-linked pseudogene 8
RP4-614O4.13	-1.04	Tec	IGF2 antisense RNA
PHPT1	-1.04	Protein coding	RNA 7SL cytoplasmic 521 pseudogene
EPS8L1	-1.04	Protein coding	NA
DDIT3	-1.04	Protein coding	Transmembrane protein 262
FZD2	-1.04	Protein coding	Wingless-type MMTV integration site family member 6
PRKAR1B	-1.04	Protein coding	Chromosome 8 open reading frame 76
PGC	-1.04	Protein coding	Cysteine-rich protein 1 (intestiNAL)
MACROD1	-1.04	Protein coding	Proprotein convertase subtilisin/kexin type 1 inhibitor
PINK1	-1.04	Protein coding	NA
NUCB1	-1.04	Protein coding	Tumor necrosis factor receptor superfamily member 4
DUS3L	-1.04	Protein coding	Ornithine decarboxylase antizyme 3
TPSG1	-1.04	Protein coding	NA
PACSIN3	-1.04	Protein coding	N-termiNAL EF-hand calcium binding protein 2
NAT6	-1.04	Protein coding	Coiled-coil domain containing 189
TONSL	-1.04	Protein coding	Atpase H+/K+ exchanging $\alpha$ polypeptide
MST1P2	-1.03	Unprocessed pseudogene	NA
DECRR2	-1.03	Protein coding	Small nucleolar RNA C/D box 6
ZNF48	-1.03	Protein coding	Radial spoke head 14 homolog (ChlamydomoNAs)
ZNF219	-1.03	Protein coding	SCO2 cytochrome c oxidase assembly protein
TRMT61A	-1.03	Protein coding	NA
TNNT1	-1.03	Protein coding	NA
FAM50A	-1.03	Protein coding	PAGE family member 2B
FOXD3-AS1	-1.03	Antisense	NA
PLD3	-1.03	Protein coding	NA
DGCR14	-1.03	Protein coding	BTB (POZ) domain containing 18
COL11A2	-1.03	Protein coding	NA
ARRDC1	-1.03	Protein coding	Adrenoceptor $\alpha$ 2B
RPP25L	-1.03	Protein coding	Laminin subunit $\gamma$ 3
NDUFV1	-1.03	Protein coding	NA
OGFR	-1.03	Protein coding	Long intergenic non-protein coding RNA 299
PPDPF	-1.03	Protein coding	Transmembrane protein 89
CDC42EP1	-1.03	Protein coding	Y-box binding protein 1 pseudogene 10
CLTB	-1.03	Protein coding	NA
MROH6	-1.03	Protein coding	Secretoglobin family 1B member 2 pseudogene
NDUFS8	-1.03	Protein coding	Transmembrane protein 132E
UBE2M	-1.03	Protein coding	Coagulation factor VIII-associated 3
GRIN1	-1.03	Protein coding	NA
LRFN1	-1.03	Protein coding	Colon adenocarcinoma hypermethylated (non-protein coding)
TOB1-AS1	-1.03	Processed transcript	Solute carrier family 25 member 34
CTD-2517M22.14	-1.03	Processed transcript	Transmembrane protein 37
KANK3	-1.03	Protein coding	Chromosome 17 open reading frame 82
PALM3	-1.03	Protein coding	Serpin peptidase inhibitor clade D (heparin cofactor) member 1
SMPD5	-1.03	Antisense	NA
RP1-118J21.25	-1.02	Antisense	NA
CYHR1	-1.02	Protein coding	ATP synthase H+ transporting mitochondrial Fo complex subunit C1 (subunit 9) pseudogene 4
FNDC4	-1.02	Protein coding	Neuroblastoma breakpoint family member 4
SHROOM1	-1.02	Protein coding	NA
PIDD1	-1.02	Protein coding	Nitric oxide synthase 2 pseudogene 3
FOXD1	-1.02	Protein coding	Exocyst complex component 3-like 2

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
AC007285.6	-1.02	Antisense	NA
MVB12A	-1.02	Protein coding	NA
PPP1R12C	-1.02	Protein coding	CCNT2 antisense RNA 1
FBXO44	-1.02	Protein coding	NA
UPK3B	-1.02	Protein coding	Solute carrier family 6 (neurotransmitter transporter) member 12
ZNF408	-1.02	Protein coding	Uncharacterized LOC26102
NCLN	-1.02	Protein coding	NA
PYCRL	-1.02	Protein coding	NA
VAMP5	-1.02	Protein coding	NA
ADCK5	-1.02	Protein coding	NA
PARD6A	-1.02	Protein coding	Suprabasin
NAA60	-1.02	Protein coding	NA
MAP3K11	-1.02	Protein coding	NA
TMEM161A	-1.02	Protein coding	NA
B3GAT3	-1.02	Protein coding	Chemokine (C-C motif) ligand 3
LRRC75B	-1.02	Protein coding	NA
TELO2	-1.02	Protein coding	Dual specificity phosphatase 8 pseudogene 3
TCAP	-1.02	Protein coding	NA
SYCE1L	-1.02	Protein coding	NA
GPANK1	-1.02	Protein coding	Usher syndrome 1C binding protein 1
OXLD1	-1.02	Protein coding	Glutathione S-transferase mu 3 (brain)
TIMP1	-1.02	Protein coding	Ferritin heavy polypeptide 1 pseudogene 8
XAB2	-1.02	Protein coding	Adhesion G protein-coupled receptor E1
ZNF628	-1.02	Protein coding	RNA U2 small nuclear 27 pseudogene
KCNIP3	-1.01	Protein coding	NA
GTF2IRD2B	-1.01	Protein coding	NA
G6PD	-1.01	Protein coding	NA
LIN7B	-1.01	Protein coding	NA
CORO1B	-1.01	Protein coding	NA
PKMYT1	-1.01	Protein coding	Adhesion G protein-coupled receptor D1
FAM167B	-1.01	Protein coding	Endoplasmic reticulum to nucleus sigNAling 2
KIAA2013	-1.01	Protein coding	BEN domain containing 6
STUB1	-1.01	Protein coding	NA
TMEM191A	-1.01	Processed transcript	NA
AC093673.5	-1.01	Antisense	NA
TMEM129	-1.01	Protein coding	NA
AP000432.1	-1.01	Processed transcript	NA
CFD	-1.01	Protein coding	Keratin 42 pseudogene
LINC00908	-1.01	LincRNA	Thyroid peroxidase
FSD1	-1.01	Protein coding	Ubiquitin conjugating enzyme E2M pseudogene 1
THOC6	-1.01	Protein coding	Olfactory marker protein
IRX5	-1.01	Protein coding	PC-esterase domain containing 1B
CDK2AP2	-1.01	Protein coding	NA
NUDT8	-1.01	Protein coding	NA
CCDC64B	-1.01	Protein coding	Interleukin 1 receptor type II
SNAPC4	-1.01	Protein coding	Spermatogenesis associated 3
CLDN23	-1.01	Protein coding	NA
SAMD1	-1.01	Protein coding	Regenerating family member 3 $\alpha$
MPG	-1.01	Protein coding	Small nucleolar RNA C/D box 7
PTGES2	-1.01	Protein coding	Iron-sulfur cluster assembly 1 pseudogene 4
MSLNL	-1.01	Protein coding	HYI antisense RNA 1
CDIPT	-1.01	Protein coding	NA
UBE2S	-1.01	Protein coding	NA
CHST12	-1.01	Protein coding	NA
REC8	-1.01	Protein coding	RNA 7SL cytoplasmic 513 pseudogene
CARD19	-1.01	Protein coding	NA
POLD1	-1.01	Protein coding	Solute carrier family 6 (neurotransmitter transporter) member 4

Table SIII. Continued.

Gene name	$\log_2$ fold change	Gene type	Full name of gene
TBL3	-1.01	Protein coding	NAnos homolog 2 ( <i>Drosophila</i> )
PLEKHF1	-1.00	Protein coding	Speedy/RINGO cell cycle regulator family member E17
CHCHD6	-1.00	Protein coding	Alanine-glyoxylate aminotransferase
TBCB	-1.00	Protein coding	C-type lectin domain family 17 member A
ARMC6	-1.00	Protein coding	NA
MAF1	-1.00	Protein coding	NA
CYC1	-1.00	Protein coding	ABI family member 3
RITA1	-1.00	Protein coding	Small nucleolar RNA host gene 22
MFSD10	-1.00	Protein coding	Family with sequence similarity 209 member A
ZNF513	-1.00	Protein coding	NA
TGFB1I1	-1.00	Protein coding	NA
SMIM24	-1.00	Protein coding	NA
RP11-61K9.3	-1.00	LincRNA	Chorionic goNAdotropin $\beta$ polypeptide 5
S100A3	-1.00	Protein coding	KBTBD11 overlapping transcript 1
PDLIM2	-1.00	Protein coding	NA

MiRNA, microRNA; SnoRNA, small nucleolar RNA; lincRNA, long intergenic RNA; NA, not available (no data in Ensembl database).