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Prediction of protein-protein interaction networks and druggable genes associated with parkinson's disease

Venkatramanan Varadharajan*, Sri Thatchayani Ganapathi & Sanjeeb Kumar Mandal

Department of Biotechnology, Sri Shakthi Institute of Engineering and Technology, Coimbatore-641 062, Tamil Nadu, India

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Supplementary data

Table — List of differentially expressed genes in DMNV

ID	logFC	p-value	t	B
Up-regulated gene probes				
220878_at	4.6820	0.0001	5.4829	0.2905
216151_at	4.4735	0.0010	4.1449	-1.1728
207145_at	4.0961	0.0005	4.4276	-0.8377
208350_at	3.7234	0.0002	5.0630	-0.1344
216136_at	3.7205	0.0002	4.9714	-0.2313
220524_at	3.7085	0.0001	5.1973	0.0050
215508_at	3.6591	0.0003	4.7678	-0.4522
211565_at	3.6249	0.0081	3.0766	-2.5337
215885_at	3.6065	0.0014	3.9662	-1.3911
206675_s_at	3.4294	0.0005	4.4971	-0.7573
222246_at	3.4089	0.0063	3.2011	-2.3699
205885_s_at	3.3976	0.0036	3.4772	-2.0100
207500_at	3.3923	0.0007	4.2685	-1.0247
207465_at	3.3729	0.0062	3.2091	-2.3595
215801_at	3.3460	0.0143	2.7876	-2.9147
215542_at	3.3370	0.0031	3.5597	-1.9037
214337_at	3.3143	0.0017	3.8564	-1.5275
216758_at	3.3073	0.0024	3.6724	-1.7597
217626_at	3.2981	0.0008	4.2139	-1.0899
220897_at	3.2701	0.0020	3.7815	-1.6215
217282_at	3.2274	0.0010	4.1251	-1.1968
215814_at	3.2201	0.0004	4.6556	-0.5772
222342_at	3.2075	0.0008	4.2279	-1.0731
216674_at	3.1947	0.0007	4.2823	-1.0083
220124_at	3.1745	0.0037	3.4666	-2.0237
211039_at	3.1511	0.0032	3.5394	-1.9298
218054_s_at	3.1494	0.0023	3.6993	-1.7255
219782_s_at	3.1285	0.0010	4.1403	-1.1784
206674_at	3.1187	0.0020	3.7678	-1.6388
219901_at	3.1170	0.0044	3.3786	-2.1380
221154_at	3.1166	0.0044	3.3799	-2.1362
211425_x_at	3.1122	0.0014	3.9675	-1.3896
214776_x_at	3.1062	0.0001	5.3777	0.1871
219950_s_at	3.0970	0.0023	3.6975	-1.7277

220205_at	3.0950	0.0052	3.2962	-2.2454
207229_at	3.0844	0.0019	3.7878	-1.6136
207712_at	3.0805	0.0181	2.6700	-3.0694
207147_at	3.0799	0.0009	4.1772	-1.1339
208434_at	3.0766	0.0012	4.0255	-1.3182
220729_at	3.0757	0.0121	2.8733	-2.8018
220384_at	3.0616	0.0211	2.5922	-3.1712
208047_s_at	3.0499	0.0022	3.7253	-1.6925
208065_at	3.0494	0.0056	3.2609	-2.2916
213071_at	3.0319	0.0123	2.8659	-2.8116
220799_at	3.0167	0.0047	3.3449	-2.1818
211585_at	3.0050	0.0201	2.6147	-3.1418
222083_at	2.9906	0.0083	3.0622	-2.5528
205496_at	2.9869	0.0009	4.1928	-1.1152
209480_at	2.9785	0.0076	3.1089	-2.4912
216947_at	2.9707	0.0114	2.9013	-2.7649
216480_x_at	2.9631	0.0004	4.5687	-0.6754
216613_at	2.9511	0.0006	4.4066	-0.8622
214642_x_at	2.9413	0.0154	2.7517	-2.9620
219918_s_at	2.9387	0.0173	2.6925	-3.0399
207819_s_at	2.9312	0.0037	3.4630	-2.0284
213416_at	2.9171	0.0009	4.1536	-1.1624
217428_s_at	2.9156	0.0095	2.9933	-2.6436
217702_at	2.9056	0.0019	3.8051	-1.5919
215072_x_at	2.9034	0.0062	3.2094	-2.3591
206479_at	2.8934	0.0055	3.2669	-2.2837
213219_at	2.8772	0.0016	3.8932	-1.4816
208263_at	2.8769	0.0069	3.1546	-2.4311
216001_at	2.8752	0.0076	3.1060	-2.4950
211164_at	2.8683	0.0046	3.3601	-2.1621
216493_s_at	2.8677	0.0041	3.4136	-2.0924
207881_at	2.8674	0.0019	3.7926	-1.6075
205114_s_at	2.8651	0.0012	4.0231	-1.3212
221391_at	2.8644	0.0112	2.9111	-2.7520
216665_s_at	2.8633	0.0043	3.3933	-2.1188
215708_s_at	2.8534	0.0037	3.4710	-2.0181
216644_at	2.8502	0.0085	3.0508	-2.5678
220656_at	2.8498	0.0151	2.7614	-2.9493
214131_at	2.8428	0.0012	4.0105	-1.3366
219759_at	2.8361	0.0005	4.4424	-0.8205
207054_at	2.8330	0.0225	2.5591	-3.2144
217449_at	2.8268	0.0026	3.6359	-1.8062
200951_s_at	2.8267	0.0136	2.8155	-2.8780
220670_at	2.8240	0.0012	4.0165	-1.3292
206694_at	2.8240	0.0004	4.6245	-0.6122
220393_at	2.8145	0.0249	2.5056	-3.2839
216626_at	2.8132	0.0153	2.7541	-2.9589
205810_s_at	2.8101	0.0008	4.2389	-1.0600
207276_at	2.8099	0.0166	2.7130	-3.0130
220884_at	2.8081	0.0360	2.3155	-3.5283
205499_at	2.8056	0.0001	5.6118	0.4147
215894_at	2.8026	0.0028	3.5960	-1.8571
205782_at	2.7837	0.0059	3.2286	-2.3339
207815_at	2.7801	0.0056	3.2543	-2.3003
210392_x_at	2.7771	0.0056	3.2623	-2.2898
204884_s_at	2.7743	0.0064	3.1924	-2.3814

222378_at	2.7723	0.0066	3.1758	-2.4033
213544_at	2.7549	0.0162	2.7255	-2.9965
206673_at	2.7546	0.0008	4.2095	-1.0952
213831_at	2.7534	0.0056	3.2613	-2.2911
205942_s_at	2.7521	0.0220	2.5690	-3.2014
217576_x_at	2.7506	0.0024	3.6833	-1.7457
212374_at	2.7427	0.0028	3.5965	-1.8566
207874_s_at	2.7397	0.0082	3.0659	-2.5478
203472_s_at	2.7364	0.0127	2.8470	-2.8365
219915_s_at	2.7350	0.0012	4.0327	-1.3093
217953_at	2.7347	0.0319	2.3772	-3.4495
211204_at	2.7334	0.0044	3.3837	-2.1313
210219_at	2.7327	0.0152	2.7571	-2.9549
220063_at	2.7276	0.0165	2.7163	-3.0087
217602_at	2.7256	0.0117	2.8891	-2.7810
205307_s_at	2.7236	0.0037	3.4711	-2.0180
214983_at	2.7204	0.0016	3.8890	-1.4869
219977_at	2.7192	0.0131	2.8342	-2.8533
204727_at	2.7155	0.0022	3.7241	-1.6940
210297_s_at	2.7134	0.0025	3.6619	-1.7730
211736_at	2.7121	0.0221	2.5664	-3.2048
210525_x_at	2.7097	0.0104	2.9468	-2.7049
214932_at	2.7063	0.0053	3.2889	-2.2550
214759_at	2.7048	0.0045	3.3645	-2.1563
210945_at	2.7007	0.0025	3.6520	-1.7856
217372_at	2.7007	0.0097	2.9818	-2.6587
206318_at	2.6959	0.0162	2.7258	-2.9961
204641_at	2.6950	0.0173	2.6913	-3.0415
217706_at	2.6949	0.0006	4.4091	-0.8593
201151_s_at	2.6946	0.0019	3.7908	-1.6097
211213_at	2.6929	0.0294	2.4207	-3.3937
203399_x_at	2.6913	0.0257	2.4900	-3.3041
217649_at	2.6905	0.0110	2.9216	-2.7382
208023_at	2.6842	0.0057	3.2494	-2.3066
222145_at	2.6841	0.0070	3.1501	-2.4370
213150_at	2.6793	0.0013	3.9806	-1.3733
211094_s_at	2.6683	0.0002	4.9068	-0.3006
210199_at	2.6659	0.0067	3.1674	-2.4142
217332_at	2.6639	0.0133	2.8253	-2.8651
206364_at	2.6630	0.0059	3.2334	-2.3277
218875_s_at	2.6624	0.0077	3.1010	-2.5015
203634_s_at	2.6556	0.0352	2.3265	-3.5144
207544_s_at	2.6504	0.0097	2.9862	-2.6529
208292_at	2.6456	0.0024	3.6905	-1.7366
205680_at	2.6390	0.0041	3.4139	-2.0921
217229_at	2.6385	0.0078	3.0927	-2.5125
210562_at	2.6266	0.0152	2.7572	-2.9549
211768_at	2.6255	0.0217	2.5763	-3.1919
211149_at	2.6241	0.0247	2.5105	-3.2776
211264_at	2.6211	0.0218	2.5747	-3.1940
216529_at	2.6196	0.0454	2.1920	-3.6841
216712_at	2.6162	0.0083	3.0635	-2.5511
206218_at	2.6137	0.0238	2.5284	-3.2543
217400_at	2.6053	0.0220	2.5700	-3.2001
215652_at	2.6016	0.0057	3.2471	-2.3097
204286_s_at	2.5989	0.0245	2.5142	-3.2728

216556_x_at	2.5978	0.0058	3.2387	-2.3207
220978_at	2.5927	0.0145	2.7803	-2.9244
205732_s_at	2.5904	0.0369	2.3015	-3.5462
216426_at	2.5899	0.0020	3.7733	-1.6319
206566_at	2.5894	0.0013	3.9904	-1.3613
211359_s_at	2.5871	0.0057	3.2486	-2.3077
208650_s_at	2.5847	0.0194	2.6333	-3.1174
216513_at	2.5839	0.0159	2.7357	-2.9831
206207_at	2.5829	0.0427	2.2247	-3.6431
215904_at	2.5734	0.0086	3.0420	-2.5793
206532_at	2.5720	0.0031	3.5513	-1.9145
217382_at	2.5712	0.0015	3.9286	-1.4376
206071_s_at	2.5652	0.0045	3.3664	-2.1539
217712_at	2.5650	0.0210	2.5931	-3.1700
220154_at	2.5632	0.0156	2.7436	-2.9728
221138_s_at	2.5620	0.0059	3.2356	-2.3248
221697_at	2.5580	0.0064	3.1885	-2.3865
211616_s_at	2.5577	0.0111	2.9168	-2.7445
222112_at	2.5575	0.0069	3.1572	-2.4276
215634_at	2.5567	0.0119	2.8795	-2.7937
207602_at	2.5563	0.0114	2.9030	-2.7627
215658_at	2.5562	0.0049	3.3227	-2.2108
210918_at	2.5557	0.0204	2.6083	-3.1501
206609_at	2.5519	0.0013	3.9787	-1.3757
221615_at	2.5493	0.0220	2.5704	-3.1996
207731_at	2.5468	0.0349	2.3313	-3.5082
216772_at	2.5440	0.0007	4.3155	-0.9690
216190_x_at	2.5437	0.0050	3.3113	-2.2257
209961_s_at	2.5421	0.0327	2.3647	-3.4656
215567_at	2.5421	0.0117	2.8888	-2.7815
219970_at	2.5396	0.0079	3.0866	-2.5205
214415_at	2.5388	0.0168	2.7056	-3.0227
216746_at	2.5371	0.0095	2.9946	-2.6418
214292_at	2.5342	0.0075	3.1155	-2.4825
215877_at	2.5317	0.0004	4.6432	-0.5911
216975_x_at	2.5315	0.0065	3.1813	-2.3960
217552_x_at	2.5315	0.0030	3.5647	-1.8973
219497_s_at	2.5308	0.0076	3.1087	-2.4915
222287_at	2.5276	0.0160	2.7320	-2.9880
220320_at	2.5238	0.0015	3.9270	-1.4397
214422_at	2.5212	0.0036	3.4803	-2.0061
210772_at	2.5209	0.0113	2.9061	-2.7586
218967_s_at	2.5199	0.0009	4.1613	-1.1531
214612_x_at	2.5183	0.0050	3.3133	-2.2230
204344_s_at	2.5165	0.0321	2.3745	-3.4531
214592_s_at	2.5149	0.0012	4.0260	-1.3175
221586_s_at	2.5148	0.0169	2.7042	-3.0244
210941_at	2.5137	0.0222	2.5654	-3.2062
211118_x_at	2.5131	0.0051	3.3004	-2.2400
219612_s_at	2.5126	0.0228	2.5519	-3.2238
214770_at	2.5113	0.0288	2.4305	-3.3811
209519_at	2.5077	0.0070	3.1445	-2.4444
217373_x_at	2.5060	0.0055	3.2699	-2.2798
216322_at	2.5022	0.0395	2.2665	-3.5905
221467_at	2.5018	0.0031	3.5537	-1.9114
207156_at	2.5007	0.0120	2.8765	-2.7976

208271_at	2.4996	0.0254	2.4958	-3.2967
219837_s_at	2.4990	0.0148	2.7728	-2.9343
207217_s_at	2.4987	0.0010	4.1307	-1.1901
205430_at	2.4977	0.0162	2.7255	-2.9965
207092_at	2.4925	0.0085	3.0518	-2.5665
205764_at	2.4908	0.0060	3.2273	-2.3356
208057_s_at	2.4895	0.0156	2.7444	-2.9716
211627_x_at	2.4834	0.0255	2.4935	-3.2997
206420_at	2.4807	0.0262	2.4807	-3.3162
220076_at	2.4773	0.0076	3.1053	-2.4959
212092_at	2.4755	0.0155	2.7488	-2.9658
216869_at	2.4753	0.0085	3.0515	-2.5668
202952_s_at	2.4748	0.0137	2.8088	-2.8868
221399_at	2.4745	0.0046	3.3611	-2.1607
208161_s_at	2.4739	0.0198	2.6237	-3.1300
207166_at	2.4732	0.0161	2.7272	-2.9942
208387_s_at	2.4718	0.0065	3.1872	-2.3882
205939_at	2.4667	0.0035	3.4986	-1.9824
219262_at	2.4662	0.0108	2.9289	-2.7285
210134_x_at	2.4612	0.0001	5.4459	0.2544
220328_at	2.4592	0.0191	2.6425	-3.1054
213856_at	2.4559	0.0190	2.6441	-3.1033
216649_at	2.4529	0.0012	4.0219	-1.3227
207397_s_at	2.4488	0.0200	2.6175	-3.1381
217194_at	2.4482	0.0217	2.5759	-3.1925
214827_at	2.4480	0.0015	3.9286	-1.4377
206134_at	2.4471	0.0396	2.2651	-3.5922
210813_s_at	2.4469	0.0135	2.8191	-2.8733
207918_s_at	2.4463	0.0401	2.2586	-3.6005
219589_s_at	2.4453	0.0023	3.6994	-1.7253
216154_at	2.4418	0.0185	2.6578	-3.0854
220431_at	2.4397	0.0288	2.4312	-3.3802
221446_at	2.4395	0.0094	2.9988	-2.6363
214831_at	2.4375	0.0130	2.8365	-2.8504
208551_at	2.4372	0.0279	2.4472	-3.3595
213790_at	2.4367	0.0041	3.4084	-2.0992
211446_at	2.4361	0.0273	2.4580	-3.3455
221319_at	2.4328	0.0073	3.1233	-2.4722
220055_at	2.4310	0.0055	3.2677	-2.2827
207587_at	2.4305	0.0140	2.8008	-2.8974
215563_s_at	2.4272	0.0293	2.4216	-3.3925
217470_at	2.4271	0.0074	3.1165	-2.4812
206389_s_at	2.4269	0.0089	3.0293	-2.5960
208273_at	2.4268	0.0437	2.2125	-3.6585
216702_x_at	2.4254	0.0070	3.1435	-2.4457
216643_at	2.4233	0.0245	2.5143	-3.2727
221662_s_at	2.4233	0.0026	3.6371	-1.8046
216056_at	2.4231	0.0187	2.6535	-3.0910
206016_at	2.4230	0.0036	3.4799	-2.0066
207912_s_at	2.4216	0.0387	2.2775	-3.5766
201476_s_at	2.4213	0.0075	3.1149	-2.4833
220004_at	2.4146	0.0122	2.8672	-2.8099
214666_x_at	2.4139	0.0248	2.5079	-3.2810
217369_at	2.4127	0.0023	3.7075	-1.7150
207710_at	2.4116	0.0027	3.6151	-1.8328
216769_x_at	2.4095	0.0073	3.1237	-2.4717

217632_at	2.4092	0.0130	2.8359	-2.8512
208243_s_at	2.4091	0.0054	3.2748	-2.2734
221305_s_at	2.4070	0.0047	3.3482	-2.1776
217247_at	2.4065	0.0178	2.6791	-3.0575
219059_s_at	2.4042	0.0068	3.1642	-2.4184
212768_s_at	2.4024	0.0077	3.0974	-2.5063
213415_at	2.4020	0.0241	2.5219	-3.2628
220899_at	2.4002	0.0058	3.2442	-2.3134
203784_s_at	2.3999	0.0119	2.8823	-2.7899
205221_at	2.3981	0.0012	4.0278	-1.3153
216872_at	2.3977	0.0274	2.4560	-3.3482
207236_at	2.3969	0.0229	2.5481	-3.2287
220139_at	2.3948	0.0113	2.9055	-2.7594
207409_at	2.3920	0.0354	2.3237	-3.5179
215912_at	2.3918	0.0235	2.5356	-3.2449
215326_at	2.3917	0.0336	2.3504	-3.4839
201286_at	2.3897	0.0099	2.9750	-2.6676
214588_s_at	2.3892	0.0317	2.3815	-3.4440
220422_at	2.3887	0.0034	3.5063	-1.9725
216797_at	2.3856	0.0274	2.4576	-3.3461
214236_at	2.3843	0.0089	3.0286	-2.5970
210988_s_at	2.3823	0.0020	3.7655	-1.6416
217392_at	2.3803	0.0375	2.2938	-3.5559
216009_at	2.3795	0.0019	3.8053	-1.5915
222250_s_at	2.3749	0.0045	3.3714	-2.1473
222187_x_at	2.3743	0.0063	3.1972	-2.3751
206634_at	2.3732	0.0124	2.8608	-2.8183
205867_at	2.3710	0.0172	2.6944	-3.0374
210603_at	2.3707	0.0250	2.5044	-3.2855
206473_at	2.3707	0.0060	3.2235	-2.3406
209540_at	2.3692	0.0042	3.3962	-2.1151
210191_s_at	2.3671	0.0003	4.6850	-0.5443
204406_at	2.3654	0.0066	3.1771	-2.4015
207074_s_at	2.3647	0.0033	3.5201	-1.9547
204475_at	2.3646	0.0203	2.6114	-3.1460
205054_at	2.3608	0.0077	3.0961	-2.5081
220299_at	2.3603	0.0313	2.3880	-3.4358
219466_s_at	2.3603	0.0086	3.0455	-2.5748
204996_s_at	2.3594	0.0021	3.7564	-1.6532
218295_s_at	2.3572	0.0076	3.1083	-2.4920
203214_x_at	2.3570	0.0056	3.2583	-2.2950
216314_at	2.3564	0.0186	2.6556	-3.0882
211330_s_at	2.3549	0.0049	3.3252	-2.2076
220444_at	2.3548	0.0137	2.8092	-2.8864
215573_at	2.3513	0.0253	2.4982	-3.2935
214397_at	2.3490	0.0050	3.3106	-2.2267
216858_x_at	2.3487	0.0109	2.9272	-2.7307
205655_at	2.3486	0.0256	2.4917	-3.3020
215974_at	2.3472	0.0107	2.9348	-2.7208
207794_at	2.3455	0.0040	3.4309	-2.0700
204455_at	2.3418	0.0272	2.4605	-3.3423
217512_at	2.3397	0.0359	2.3160	-3.5278
206130_s_at	2.3394	0.0008	4.2271	-1.0741
221633_at	2.3344	0.0051	3.3034	-2.2360
210366_at	2.3328	0.0112	2.9122	-2.7505
216588_at	2.3320	0.0275	2.4548	-3.3497

214644_at	2.3317	0.0235	2.5348	-3.2460
AFFX-M27830_3_at	2.3314	0.0163	2.7210	-3.0024
216146_at	2.3284	0.0078	3.0896	-2.5166
222061_at	2.3276	0.0203	2.6105	-3.1473
216072_at	2.3233	0.0146	2.7790	-2.9261
216238_s_at	2.3203	0.0150	2.7657	-2.9437
203764_at	2.3198	0.0288	2.4308	-3.3806
210464_at	2.3194	0.0204	2.6071	-3.1517
204492_at	2.3188	0.0219	2.5724	-3.1970
214029_at	2.3161	0.0389	2.2743	-3.5806
207977_s_at	2.3137	0.0100	2.9703	-2.6739
222334_at	2.3134	0.0059	3.2305	-2.3314
220611_at	2.3114	0.0249	2.5063	-3.2830
206528_at	2.3078	0.0015	3.9063	-1.4654
217056_at	2.3054	0.0019	3.7910	-1.6096
222300_at	2.3051	0.0190	2.6437	-3.1038
220645_at	2.3051	0.0233	2.5408	-3.2381
207754_at	2.3049	0.0022	3.7236	-1.6946
205734_s_at	2.3048	0.0193	2.6364	-3.1133
206640_x_at	2.3036	0.0198	2.6225	-3.1316
206839_at	2.3034	0.0068	3.1604	-2.4234
207647_at	2.3023	0.0222	2.5640	-3.2079
215531_s_at	2.3021	0.0035	3.4866	-1.9979
204913_s_at	2.3020	0.0385	2.2798	-3.5737
206291_at	2.3016	0.0448	2.1993	-3.6751
211892_s_at	2.2991	0.0171	2.6994	-3.0308
217537_x_at	2.2921	0.0362	2.3126	-3.5320
215840_at	2.2904	0.0107	2.9355	-2.7198
211440_x_at	2.2903	0.0231	2.5440	-3.2341
210767_at	2.2897	0.0337	2.3500	-3.4844
206140_at	2.2887	0.0422	2.2313	-3.6349
204525_at	2.2885	0.0252	2.5005	-3.2905
215552_s_at	2.2870	0.0149	2.7687	-2.9397
207441_at	2.2867	0.0167	2.7095	-3.0175
214845_s_at	2.2859	0.0236	2.5342	-3.2467
207737_at	2.2839	0.0037	3.4633	-2.0280
204463_s_at	2.2783	0.0070	3.1481	-2.4396
206778_at	2.2738	0.0252	2.5007	-3.2902
219857_at	2.2732	0.0056	3.2606	-2.2919
208460_at	2.2727	0.0049	3.3265	-2.2058
206239_s_at	2.2715	0.0134	2.8214	-2.8703
211790_s_at	2.2706	0.0460	2.1856	-3.6922
208283_at	2.2673	0.0030	3.5673	-1.8940
215125_s_at	2.2669	0.0182	2.6664	-3.0741
206350_at	2.2660	0.0166	2.7116	-3.0148
208107_s_at	2.2643	0.0028	3.6095	-1.8399
201890_at	2.2640	0.0189	2.6483	-3.0978
204637_at	2.2636	0.0068	3.1637	-2.4191
206776_x_at	2.2636	0.0058	3.2373	-2.3226
215692_s_at	2.2633	0.0392	2.2698	-3.5864
222072_at	2.2626	0.0020	3.7666	-1.6403
205921_s_at	2.2626	0.0259	2.4861	-3.3092
216782_at	2.2621	0.0134	2.8226	-2.8686
218036_x_at	2.2575	0.0164	2.7203	-3.0034
204609_at	2.2573	0.0072	3.1304	-2.4629
221132_at	2.2572	0.0216	2.5784	-3.1892

215369_at	2.2559	0.0162	2.7260	-2.9958
206365_at	2.2545	0.0191	2.6418	-3.1063
210476_s_at	2.2488	0.0007	4.2907	-0.9984
222384_at	2.2484	0.0206	2.6033	-3.1567
216148_at	2.2473	0.0121	2.8726	-2.8028
207631_at	2.2472	0.0065	3.1864	-2.3893
214747_at	2.2464	0.0366	2.3065	-3.5399
211169_s_at	2.2462	0.0442	2.2068	-3.6657
207036_x_at	2.2446	0.0157	2.7421	-2.9747
211196_at	2.2419	0.0217	2.5758	-3.1926
209832_s_at	2.2414	0.0009	4.1986	-1.1083
217246_s_at	2.2412	0.0228	2.5503	-3.2258
215957_at	2.2403	0.0110	2.9195	-2.7409
205147_x_at	2.2402	0.0089	3.0281	-2.5976
222225_at	2.2384	0.0060	3.2213	-2.3434
217464_at	2.2355	0.0060	3.2257	-2.3377
208529_at	2.2352	0.0289	2.4285	-3.3836
213663_s_at	2.2327	0.0210	2.5925	-3.1708
219606_at	2.2321	0.0088	3.0317	-2.5929
217134_at	2.2293	0.0183	2.6632	-3.0783
207019_s_at	2.2272	0.0104	2.9479	-2.7034
221170_at	2.2266	0.0442	2.2067	-3.6658
217479_at	2.2264	0.0239	2.5281	-3.2547
207613_s_at	2.2261	0.0365	2.3074	-3.5386
213611_at	2.2254	0.0172	2.6943	-3.0375
213621_s_at	2.2245	0.0119	2.8829	-2.7892
213516_at	2.2243	0.0156	2.7452	-2.9706
205654_at	2.2238	0.0250	2.5050	-3.2847
206386_at	2.2231	0.0095	2.9918	-2.6455
206706_at	2.2198	0.0043	3.3863	-2.1280
208479_at	2.2163	0.0071	3.1396	-2.4508
206786_at	2.2140	0.0219	2.5724	-3.1970
220738_s_at	2.2126	0.0320	2.3759	-3.4512
219688_at	2.2115	0.0268	2.4688	-3.3316
206921_at	2.2090	0.0238	2.5301	-3.2521
210559_s_at	2.2080	0.0346	2.3363	-3.5019
206865_at	2.2065	0.0089	3.0252	-2.6015
220828_s_at	2.2054	0.0184	2.6601	-3.0823
215254_at	2.2045	0.0399	2.2607	-3.5979
208553_at	2.2039	0.0204	2.6072	-3.1516
215937_at	2.2035	0.0193	2.6357	-3.1143
207886_s_at	2.2030	0.0144	2.7844	-2.9190
207487_at	2.2029	0.0389	2.2747	-3.5802
221470_s_at	2.2020	0.0286	2.4347	-3.3756
205569_at	2.2005	0.0499	2.1423	-3.7461
210809_s_at	2.1984	0.0380	2.2871	-3.5644
216962_at	2.1981	0.0335	2.3531	-3.4805
206490_at	2.1977	0.0071	3.1420	-2.4476
210147_at	2.1976	0.0051	3.3092	-2.2285
222037_at	2.1963	0.0200	2.6186	-3.1367
216884_at	2.1954	0.0147	2.7729	-2.9342
204579_at	2.1946	0.0181	2.6699	-3.0695
203681_at	2.1925	0.0157	2.7412	-2.9759
215037_s_at	2.1925	0.0041	3.4094	-2.0980
214567_s_at	2.1921	0.0175	2.6858	-3.0487
216979_at	2.1899	0.0073	3.1272	-2.4671

206496_at	2.1898	0.0192	2.6399	-3.1088
41660_at	2.1891	0.0076	3.1079	-2.4925
210742_at	2.1869	0.0212	2.5875	-3.1773
210286_s_at	2.1866	0.0044	3.3799	-2.1363
221268_s_at	2.1863	0.0142	2.7931	-2.9075
216401_x_at	2.1861	0.0137	2.8119	-2.8829
205001_s_at	2.1859	0.0253	2.4976	-3.2943
215973_at	2.1837	0.0156	2.7437	-2.9726
216021_s_at	2.1811	0.0193	2.6363	-3.1135
209269_s_at	2.1811	0.0370	2.3008	-3.5471
210128_s_at	2.1788	0.0339	2.3468	-3.4885
215609_at	2.1767	0.0063	3.2015	-2.3694
201438_at	2.1743	0.0017	3.8565	-1.5274
AFFX-HUMISGF3A/M97935_MA_at	2.1697	0.0433	2.2171	-3.6528
215721_at	2.1692	0.0122	2.8672	-2.8099
202445_s_at	2.1691	0.0072	3.1355	-2.4562
220767_at	2.1690	0.0215	2.5811	-3.1857
217072_at	2.1689	0.0198	2.6233	-3.1305
213277_at	2.1670	0.0183	2.6641	-3.0771
211209_x_at	2.1668	0.0232	2.5431	-3.2353
208562_s_at	2.1660	0.0073	3.1282	-2.4658
216341_s_at	2.1647	0.0073	3.1227	-2.4730
41469_at	2.1632	0.0105	2.9453	-2.7068
211393_at	2.1628	0.0153	2.7554	-2.9572
216978_x_at	2.1601	0.0064	3.1901	-2.3844
201295_s_at	2.1592	0.0461	2.1840	-3.6942
220360_at	2.1590	0.0196	2.6283	-3.1240
206890_at	2.1588	0.0278	2.4485	-3.3578
206089_at	2.1582	0.0141	2.7954	-2.9046
205754_at	2.1578	0.0010	4.1456	-1.1720
220064_at	2.1571	0.0345	2.3368	-3.5012
213586_at	2.1568	0.0145	2.7828	-2.9211
207521_s_at	2.1566	0.0254	2.4963	-3.2960
211561_x_at	2.1558	0.0354	2.3232	-3.5186
215736_at	2.1552	0.0376	2.2927	-3.5573
215619_at	2.1536	0.0094	2.9969	-2.6389
216967_at	2.1531	0.0334	2.3547	-3.4784
214234_s_at	2.1523	0.0159	2.7362	-2.9825
222242_s_at	2.1520	0.0298	2.4133	-3.4033
207407_x_at	2.1518	0.0212	2.5886	-3.1759
219181_at	2.1516	0.0257	2.4893	-3.3051
206685_at	2.1514	0.0304	2.4028	-3.4168
211179_at	2.1512	0.0282	2.4414	-3.3670
220801_s_at	2.1505	0.0237	2.5313	-3.2505
215132_at	2.1504	0.0164	2.7183	-3.0059
217242_at	2.1503	0.0058	3.2389	-2.3204
207583_at	2.1490	0.0232	2.5426	-3.2359
220146_at	2.1478	0.0424	2.2283	-3.6387
206576_s_at	2.1464	0.0163	2.7226	-3.0003
208157_at	2.1463	0.0355	2.3224	-3.5196
219853_at	2.1452	0.0373	2.2968	-3.5521
208493_at	2.1450	0.0216	2.5787	-3.1889
222135_at	2.1406	0.0251	2.5028	-3.2876
217494_s_at	2.1403	0.0159	2.7341	-2.9852
213160_at	2.1394	0.0031	3.5501	-1.9161

207887_s_at	2.1390	0.0253	2.4984	-3.2933
215444_s_at	2.1381	0.0166	2.7118	-3.0145
207207_at	2.1371	0.0373	2.2967	-3.5523
206238_s_at	2.1371	0.0389	2.2739	-3.5812
207642_at	2.1364	0.0093	3.0068	-2.6258
210368_at	2.1346	0.0314	2.3868	-3.4373
207960_at	2.1336	0.0342	2.3420	-3.4946
206020_at	2.1321	0.0086	3.0464	-2.5736
216527_at	2.1315	0.0430	2.2214	-3.6473
214024_s_at	2.1308	0.0107	2.9362	-2.7189
216856_s_at	2.1303	0.0438	2.2116	-3.6596
219386_s_at	2.1287	0.0473	2.1712	-3.7102
210172_at	2.1287	0.0155	2.7486	-2.9662
203141_s_at	2.1287	0.0176	2.6833	-3.0520
209624_s_at	2.1276	0.0331	2.3594	-3.4724
209799_at	2.1269	0.0070	3.1434	-2.4458
216681_at	2.1260	0.0471	2.1730	-3.7079
208509_s_at	2.1255	0.0431	2.2204	-3.6485
221871_s_at	2.1247	0.0294	2.4198	-3.3949
216844_at	2.1240	0.0316	2.3834	-3.4417
216279_at	2.1225	0.0251	2.5010	-3.2899
207107_at	2.1222	0.0418	2.2363	-3.6286
215958_at	2.1219	0.0202	2.6138	-3.1430
214570_x_at	2.1184	0.0069	3.1541	-2.4317
208259_x_at	2.1179	0.0164	2.7195	-3.0044
204162_at	2.1176	0.0069	3.1519	-2.4346
208088_s_at	2.1155	0.0317	2.3811	-3.4445
220323_at	2.1140	0.0154	2.7495	-2.9649
216487_at	2.1140	0.0199	2.6201	-3.1348
215048_at	2.1135	0.0404	2.2542	-3.6060
214897_at	2.1124	0.0137	2.8099	-2.8855
205520_at	2.1103	0.0131	2.8339	-2.8538
216410_at	2.1096	0.0304	2.4037	-3.4156
208721_s_at	2.1094	0.0087	3.0393	-2.5829
210411_s_at	2.1084	0.0329	2.3627	-3.4681
221238_at	2.1079	0.0124	2.8606	-2.8185
211640_x_at	2.1072	0.0071	3.1367	-2.4546
207068_at	2.1064	0.0453	2.1940	-3.6816
205847_at	2.1062	0.0032	3.5342	-1.9366
215213_at	2.1044	0.0203	2.6109	-3.1468
202563_at	2.1038	0.0102	2.9576	-2.6906
220669_at	2.1038	0.0255	2.4946	-3.2982
210995_s_at	2.1030	0.0105	2.9463	-2.7055
220017_x_at	2.1019	0.0308	2.3958	-3.4257
211163_s_at	2.0997	0.0105	2.9419	-2.7113
220567_at	2.0980	0.0119	2.8817	-2.7908
221440_s_at	2.0979	0.0286	2.4352	-3.3750
204530_s_at	2.0976	0.0045	3.3659	-2.1545
215837_x_at	2.0932	0.0500	2.1416	-3.7470
213022_s_at	2.0929	0.0136	2.8124	-2.8821
215152_at	2.0900	0.0120	2.8762	-2.7980
207489_at	2.0891	0.0225	2.5589	-3.2146
221466_at	2.0887	0.0324	2.3707	-3.4579
208324_at	2.0870	0.0228	2.5510	-3.2249
215900_at	2.0866	0.0437	2.2129	-3.6580
211245_x_at	2.0860	0.0081	3.0721	-2.5397

220743_at	2.0848	0.0256	2.4925	-3.3009
207596_at	2.0838	0.0328	2.3632	-3.4675
214178_s_at	2.0834	0.0208	2.5984	-3.1631
215447_at	2.0828	0.0125	2.8557	-2.8251
216851_at	2.0816	0.0188	2.6508	-3.0946
210203_at	2.0813	0.0020	3.7728	-1.6325
211402_x_at	2.0813	0.0089	3.0261	-2.6003
218885_s_at	2.0806	0.0076	3.1077	-2.4928
217705_at	2.0802	0.0204	2.6074	-3.1514
215864_at	2.0801	0.0378	2.2896	-3.5613
202444_s_at	2.0801	0.0230	2.5479	-3.2289
204712_at	2.0794	0.0057	3.2522	-2.3030
219552_at	2.0793	0.0198	2.6239	-3.1298
219430_at	2.0771	0.0237	2.5322	-3.2494
215970_at	2.0733	0.0170	2.7020	-3.0273
221583_s_at	2.0724	0.0125	2.8564	-2.8242
215433_at	2.0701	0.0263	2.4786	-3.3189
211223_at	2.0687	0.0108	2.9282	-2.7295
203915_at	2.0670	0.0441	2.2082	-3.6639
221116_at	2.0656	0.0147	2.7744	-2.9321
210195_s_at	2.0656	0.0164	2.7191	-3.0050
211427_s_at	2.0648	0.0174	2.6881	-3.0457
211253_x_at	2.0640	0.0249	2.5069	-3.2823
220843_s_at	2.0637	0.0045	3.3623	-2.1592
208202_s_at	2.0629	0.0189	2.6478	-3.0985
203125_x_at	2.0622	0.0062	3.2095	-2.3590
206668_s_at	2.0612	0.0391	2.2709	-3.5849
221438_s_at	2.0607	0.0349	2.3318	-3.5076
206027_at	2.0590	0.0352	2.3273	-3.5133
202438_x_at	2.0589	0.0452	2.1943	-3.6813
215697_at	2.0578	0.0398	2.2623	-3.5958
215896_at	2.0577	0.0066	3.1761	-2.4028
221125_s_at	2.0561	0.0112	2.9136	-2.7487
215275_at	2.0555	0.0236	2.5343	-3.2467
220479_at	2.0541	0.0191	2.6427	-3.1052
216816_at	2.0520	0.0448	2.2000	-3.6742
206965_at	2.0494	0.0069	3.1518	-2.4347
208342_x_at	2.0482	0.0407	2.2502	-3.6111
220667_at	2.0467	0.0178	2.6776	-3.0594
203213_at	2.0466	0.0273	2.4580	-3.3455
203850_s_at	2.0464	0.0121	2.8732	-2.8020
207828_s_at	2.0455	0.0398	2.2621	-3.5960
215933_s_at	2.0448	0.0394	2.2677	-3.5890
220901_at	2.0442	0.0127	2.8470	-2.8366
205762_s_at	2.0439	0.0128	2.8460	-2.8379
213496_at	2.0435	0.0286	2.4340	-3.3765
221167_s_at	2.0418	0.0114	2.9013	-2.7650
221936_x_at	2.0376	0.0441	2.2077	-3.6646
208554_at	2.0374	0.0016	3.8836	-1.4936
216489_at	2.0369	0.0451	2.1955	-3.6798
215959_at	2.0367	0.0203	2.6109	-3.1467
219955_at	2.0342	0.0063	3.1965	-2.3760
213094_at	2.0333	0.0284	2.4385	-3.3707
219990_at	2.0325	0.0192	2.6404	-3.1082
218748_s_at	2.0317	0.0250	2.5038	-3.2863
219763_at	2.0316	0.0216	2.5794	-3.1879

211121_s_at	2.0312	0.0060	3.2200	-2.3452
211659_at	2.0298	0.0088	3.0333	-2.5909
210637_at	2.0285	0.0168	2.7082	-3.0192
207773_x_at	2.0285	0.0114	2.9033	-2.7622
206471_s_at	2.0283	0.0444	2.2039	-3.6693
216027_at	2.0257	0.0351	2.3283	-3.5120
214729_at	2.0253	0.0106	2.9412	-2.7123
214452_at	2.0253	0.0113	2.9071	-2.7573
216838_at	2.0245	0.0103	2.9547	-2.6944
210146_x_at	2.0242	0.0181	2.6691	-3.0705
208515_at	2.0239	0.0247	2.5112	-3.2766
220852_at	2.0238	0.0268	2.4691	-3.3312
210311_at	2.0232	0.0207	2.6008	-3.1599
201171_at	2.0228	0.0266	2.4729	-3.3263
217412_at	2.0197	0.0272	2.4607	-3.3421
221075_s_at	2.0188	0.0072	3.1303	-2.4631
204704_s_at	2.0177	0.0103	2.9548	-2.6943
205058_at	2.0176	0.0232	2.5419	-3.2368
214461_at	2.0163	0.0468	2.1758	-3.7044
204312_x_at	2.0161	0.0274	2.4574	-3.3463
207373_at	2.0157	0.0216	2.5788	-3.1886
219498_s_at	2.0157	0.0419	2.2356	-3.6295
206546_at	2.0156	0.0429	2.2220	-3.6466
211122_s_at	2.0151	0.0224	2.5612	-3.2116
217349_s_at	2.0136	0.0054	3.2767	-2.2709
215022_x_at	2.0135	0.0317	2.3811	-3.4445
211636_at	2.0118	0.0047	3.3460	-2.1804
215234_at	2.0117	0.0301	2.4078	-3.4103
210595_at	2.0113	0.0274	2.4570	-3.3469
220518_at	2.0105	0.0266	2.4717	-3.3279
217587_at	2.0098	0.0293	2.4213	-3.3929
217580_x_at	2.0073	0.0314	2.3868	-3.4372
207149_at	2.0064	0.0148	2.7704	-2.9375
220723_s_at	2.0058	0.0334	2.3545	-3.4786
208481_at	2.0053	0.0174	2.6884	-3.0452
211444_at	2.0052	0.0241	2.5234	-3.2608
206660_at	2.0045	0.0312	2.3903	-3.4327
215803_at	2.0044	0.0405	2.2525	-3.6082
217562_at	2.0038	0.0177	2.6817	-3.0540
216767_at	2.0028	0.0433	2.2174	-3.6523
205286_at	2.0018	0.0116	2.8951	-2.7731
216046_at	2.0016	0.0161	2.7279	-2.9934
210370_s_at	2.0015	0.0040	3.4207	-2.0832
220105_at	2.0004	0.0109	2.9238	-2.7352
207759_s_at	2.0002	0.0067	3.1680	-2.4135
		Down-regulated gene probes		
217414_x_at	-2.8272	0.0112	-2.9099	-2.7535
201841_s_at	-2.8161	0.0103	-2.9556	-2.6933
212632_at	-2.4208	0.0305	-2.4014	-3.4185
204083_s_at	-2.3708	0.0120	-2.8752	-2.7993
218526_s_at	-2.3635	0.0159	-2.7341	-2.9852
213187_x_at	-2.3236	0.0256	-2.4922	-3.3013
217789_at	-2.2908	0.0160	-2.7326	-2.9871
215909_x_at	-2.2721	0.0090	-3.0196	-2.6088
213758_at	-2.2506	0.0043	-3.3890	-2.1245
205547_s_at	-2.1937	0.0458	-2.1874	-3.6900

212228_s_at	-2.1713	0.0465	-2.1799	-3.6993
202839_s_at	-2.1692	0.0141	-2.7953	-2.9046
203238_s_at	-2.1536	0.0304	-2.4026	-3.4170
202780_at	-2.1354	0.0276	-2.4525	-3.3527
219236_at	-2.1274	0.0269	-2.4672	-3.3337
214553_s_at	-2.1054	0.0067	-3.1653	-2.4170
213977_s_at	-2.0965	0.0231	-2.5457	-3.2317
212669_at	-2.0945	0.0234	-2.5379	-3.2420
205516_x_at	-2.0926	0.0129	-2.8411	-2.8443
203697_at	-2.0763	0.0299	-2.4116	-3.4054
203590_at	-2.0370	0.0083	-3.0647	-2.5494
210908_s_at	-2.0322	0.0244	-2.5168	-3.2694
220864_s_at	-2.0297	0.0350	-2.3302	-3.5096
204335_at	-2.0258	0.0080	-3.0786	-2.5311
221021_s_at	-2.0092	0.0227	-2.5543	-3.2206

Table 2 — List of differentially expressed genes in ION

ID	logFC	p-value	t	B
		Up-regulated gene probes		
AFFX-BioB-3_at	4.3423	0.0046	3.4168	-1.9757
AFFX-r2-Ec-bioB-M_at	4.1955	0.0029	3.6617	-1.6324
216136_at	4.1308	0.0000	6.7410	1.8507
AFFX-r2-Ec-bioB-3_at	4.0368	0.0037	3.5296	-1.8169
222299_x_at	4.0225	0.0021	3.8252	-1.4070
AFFX-BioB-M_at	4.0030	0.0044	3.4391	-1.9443
AFFX-BioC-5_at	3.8960	0.0054	3.3390	-2.0859
AFFX-r2-Ec-bioC-5_at	3.8909	0.0037	3.5318	-1.8138
219872_at	3.8544	0.0004	4.7116	-0.2548
AFFX-BioB-5_at	3.8274	0.0046	3.4176	-1.9746
AFFX-BioDn-5_at	3.7673	0.0045	3.4297	-1.9576
AFFX-r2-Ec-bioB-5_at	3.7460	0.0045	3.4339	-1.9516
211697_x_at	3.7426	0.0078	3.1469	-2.3599
207775_at	3.6809	0.0001	5.7378	0.9036
208536_s_at	3.6497	0.0004	4.7547	-0.2022
207888_at	3.6323	0.0014	4.0406	-1.1155
214041_x_at	3.5885	0.0091	3.0675	-2.4736
AFFX-BioC-3_at	3.5815	0.0056	3.3190	-2.1143
AFFX-r2-Ec-bioC-3_at	3.5362	0.0052	3.3577	-2.0595
219681_s_at	3.5326	0.0068	3.2149	-2.2627
207092_at	3.4543	0.0006	4.5507	-0.4542
220409_at	3.4468	0.0016	3.9703	-1.2099
217475_s_at	3.4049	0.0000	6.3300	1.4839
207750_at	3.3784	0.0165	2.7552	-2.9215
214776_x_at	3.3634	0.0113	2.9523	-2.6389
212874_at	3.3536	0.0063	3.2534	-2.2078
219969_at	3.3356	0.0007	4.4536	-0.5766
215704_at	3.3353	0.0004	4.7576	-0.1987
216987_at	3.3344	0.0084	3.1068	-2.4173
221278_at	3.3238	0.0043	3.4597	-1.9153
AFFX-CreX-5_at	3.3053	0.0071	3.1946	-2.2917
210799_at	3.2953	0.0003	4.9590	0.0424
210080_x_at	3.2943	0.0004	4.7594	-0.1965
216322_at	3.2533	0.0084	3.1049	-2.4201
210411_s_at	3.2376	0.0016	3.9649	-1.2172
213781_at	3.2319	0.0013	4.0857	-1.0553

217096_at	3.2187	0.0035	3.5715	-1.7581
211361_s_at	3.2148	0.0050	3.3785	-2.0300
AFFX-BioDn-3_at	3.2148	0.0089	3.0756	-2.4621
216045_at	3.2073	0.0011	4.1798	-0.9308
AFFX-r2-Ec-bioD-5_at	3.2059	0.0058	3.3014	-2.1395
221118_at	3.1985	0.0067	3.2240	-2.2497
220930_s_at	3.1864	0.0014	4.0342	-1.1240
203672_x_at	3.1803	0.0012	4.1345	-0.9905
215590_x_at	3.1736	0.0033	3.5884	-1.7345
217155_at	3.1666	0.0173	2.7290	-2.9590
213764_s_at	3.1610	0.0070	3.2009	-2.2826
220132_s_at	3.1552	0.0027	3.6934	-1.5884
215803_at	3.1515	0.0086	3.0955	-2.4336
204641_at	3.1372	0.0059	3.2939	-2.1501
209057_x_at	3.1372	0.0168	2.7440	-2.9376
220630_s_at	3.1301	0.0005	4.5784	-0.4195
205732_s_at	3.1262	0.0020	3.8607	-1.3585
220360_at	3.1179	0.0028	3.6850	-1.6001
206422_at	3.1165	0.0034	3.5854	-1.7387
217343_at	3.1034	0.0177	2.7176	-2.9752
205216_s_at	3.0998	0.0012	4.1346	-0.9904
221338_at	3.0820	0.0042	3.4634	-1.9100
206237_s_at	3.0805	0.0009	4.2906	-0.7859
219795_at	3.0790	0.0029	3.6684	-1.6232
AFFX-CreX-3_at	3.0768	0.0105	2.9881	-2.5875
217524_x_at	3.0720	0.0168	2.7451	-2.9360
208318_s_at	3.0652	0.0025	3.7328	-1.5340
AFFX-r2-Ec-bioD-3_at	3.0640	0.0118	2.9311	-2.6692
216158_at	3.0628	0.0046	3.4188	-1.9729
215736_at	3.0613	0.0058	3.2978	-2.1446
213719_s_at	3.0599	0.0013	4.0781	-1.0654
205780_at	3.0403	0.0040	3.4998	-1.8588
206801_at	3.0399	0.0025	3.7373	-1.5278
209642_at	3.0359	0.0025	3.7436	-1.5191
211088_s_at	3.0235	0.0010	4.2083	-0.8933
222084_s_at	3.0176	0.0001	5.8572	1.0256
211517_s_at	3.0097	0.0005	4.6299	-0.3555
210683_at	2.9910	0.0126	2.8948	-2.7215
AFFX-r2-P1-cre-3_at	2.9855	0.0100	3.0153	-2.5485
211821_x_at	2.9796	0.0099	3.0215	-2.5396
220345_at	2.9790	0.0019	3.8919	-1.3161
209646_x_at	2.9723	0.0197	2.6612	-3.0558
206916_x_at	2.9695	0.0033	3.5965	-1.7233
216819_at	2.9676	0.0171	2.7344	-2.9512
217326_x_at	2.9603	0.0009	4.3025	-0.7704
220380_at	2.9567	0.0097	3.0333	-2.5226
220374_at	2.9476	0.0002	5.2366	0.3623
AFFX-r2-Bs-dap-5_at	2.9465	0.0079	3.1360	-2.3755
220323_at	2.9286	0.0104	2.9942	-2.5787
207237_at	2.9119	0.0030	3.6456	-1.6549
206772_at	2.9118	0.0129	2.8815	-2.7405
207773_x_at	2.9034	0.0073	3.1808	-2.3114
204940_at	2.9005	0.0120	2.9211	-2.6836
216050_at	2.8946	0.0004	4.7270	-0.2360
210521_s_at	2.8944	0.0006	4.5460	-0.4600
205966_at	2.8925	0.0021	3.8297	-1.4008

210286_s_at	2.8921	0.0120	2.9220	-2.6824
201744_s_at	2.8897	0.0196	2.6645	-3.0510
215240_at	2.8873	0.0055	3.3288	-2.1005
AFFX-r2-P1-cre-5_at	2.8868	0.0126	2.8951	-2.7210
204590_x_at	2.8817	0.0019	3.8916	-1.3165
216369_at	2.8714	0.0078	3.1430	-2.3655
209371_s_at	2.8685	0.0028	3.6784	-1.6092
220943_s_at	2.8635	0.0019	3.8951	-1.3117
211265_at	2.8634	0.0136	2.8560	-2.7770
216068_at	2.8544	0.0069	3.2068	-2.2742
201130_s_at	2.8476	0.0038	3.5155	-1.8367
216191_s_at	2.8398	0.0294	2.4482	-3.3575
207502_at	2.8324	0.0012	4.1260	-1.0017
210654_at	2.8200	0.0044	3.4489	-1.9305
220254_at	2.8170	0.0076	3.1574	-2.3449
206952_at	2.8146	0.0332	2.3843	-3.4469
208054_at	2.8140	0.0319	2.4050	-3.4180
220997_s_at	2.8089	0.0450	2.2194	-3.6748
215539_at	2.8082	0.0253	2.5287	-3.2439
208193_at	2.8007	0.0069	3.2079	-2.2727
217451_at	2.7827	0.0240	2.5560	-3.2054
216966_at	2.7790	0.0255	2.5250	-3.2492
217123_x_at	2.7787	0.0409	2.2715	-3.6033
206312_at	2.7778	0.0086	3.0966	-2.4319
207930_at	2.7745	0.0039	3.5016	-1.8562
207745_at	2.7704	0.0025	3.7402	-1.5238
217321_x_at	2.7563	0.0031	3.6265	-1.6815
210780_at	2.7543	0.0004	4.7265	-0.2366
214001_x_at	2.7528	0.0054	3.3406	-2.0838
222329_x_at	2.7502	0.0091	3.0645	-2.4779
211789_s_at	2.7501	0.0078	3.1443	-2.3636
221765_at	2.7493	0.0009	4.2985	-0.7756
216686_at	2.7457	0.0150	2.8043	-2.8512
213458_at	2.7426	0.0190	2.6812	-3.0272
207500_at	2.7426	0.0285	2.4650	-3.3338
215702_s_at	2.7373	0.0006	4.5244	-0.4871
222083_at	2.7288	0.0173	2.7283	-2.9599
207052_at	2.7257	0.0077	3.1507	-2.3544
213755_s_at	2.7214	0.0030	3.6485	-1.6508
208049_s_at	2.7203	0.0040	3.4898	-1.8729
216160_at	2.7193	0.0018	3.9149	-1.2848
212489_at	2.7133	0.0003	4.9908	0.0797
205615_at	2.7057	0.0005	4.6320	-0.3528
209351_at	2.7027	0.0053	3.3479	-2.0734
215655_at	2.7015	0.0411	2.2686	-3.6073
218663_at	2.7012	0.0049	3.3850	-2.0207
222227_at	2.6952	0.0214	2.6172	-3.1184
214413_at	2.6938	0.0089	3.0790	-2.4572
201442_s_at	2.6892	0.0199	2.6549	-3.0647
211627_x_at	2.6851	0.0198	2.6585	-3.0596
208411_x_at	2.6841	0.0187	2.6895	-3.0154
215879_at	2.6841	0.0039	3.5053	-1.8509
215969_at	2.6829	0.0024	3.7548	-1.5036
221319_at	2.6828	0.0148	2.8127	-2.8391
222342_at	2.6824	0.0174	2.7274	-2.9612
219850_s_at	2.6772	0.0050	3.3734	-2.0372

221724_s_at	2.6701	0.0005	4.6531	-0.3268
207362_at	2.6696	0.0459	2.2091	-3.6888
220347_at	2.6686	0.0001	5.5105	0.6639
210447_at	2.6632	0.0220	2.6018	-3.1403
210936_at	2.6629	0.0048	3.3954	-2.0060
206127_at	2.6559	0.0036	3.5479	-1.7913
208594_x_at	2.6477	0.0027	3.7069	-1.5697
216529_at	2.6436	0.0242	2.5517	-3.2113
204817_at	2.6432	0.0034	3.5787	-1.7481
206843_at	2.6431	0.0063	3.2543	-2.2065
215036_at	2.6418	0.0031	3.6328	-1.6726
210229_s_at	2.6409	0.0235	2.5669	-3.1899
207377_at	2.6360	0.0029	3.6628	-1.6310
202015_x_at	2.6353	0.0072	3.1866	-2.3031
206522_at	2.6350	0.0053	3.3455	-2.0767
208529_at	2.6246	0.0115	2.9431	-2.6521
210643_at	2.6218	0.0317	2.4087	-3.4128
211446_at	2.6193	0.0382	2.3081	-3.5528
214465_at	2.6161	0.0003	4.8400	-0.0992
221420_at	2.6147	0.0060	3.2781	-2.1725
207732_s_at	2.6121	0.0123	2.9076	-2.7030
217059_at	2.6090	0.0061	3.2697	-2.1845
212003_at	2.6082	0.0079	3.1421	-2.3668
211057_at	2.6074	0.0025	3.7395	-1.5248
217652_at	2.6072	0.0064	3.2504	-2.2120
207194_s_at	2.6067	0.0015	4.0172	-1.1468
207446_at	2.6023	0.0047	3.4109	-1.9841
217098_s_at	2.6001	0.0425	2.2505	-3.6322
AFFX-M27830_3_at	2.6001	0.0061	3.2713	-2.1823
205394_at	2.5989	0.0173	2.7286	-2.9595
221089_at	2.5988	0.0202	2.6478	-3.0749
221195_at	2.5962	0.0206	2.6382	-3.0886
215984_s_at	2.5947	0.0010	4.2085	-0.8930
215103_at	2.5940	0.0088	3.0807	-2.4548
216244_at	2.5934	0.0087	3.0911	-2.4398
220726_at	2.5920	0.0110	2.9673	-2.6173
222246_at	2.5917	0.0277	2.4798	-3.3129
207977_s_at	2.5905	0.0033	3.6018	-1.7159
210520_at	2.5890	0.0010	4.2173	-0.8816
217479_at	2.5851	0.0104	2.9944	-2.5785
221315_s_at	2.5829	0.0261	2.5121	-3.2675
214149_s_at	2.5826	0.0021	3.8446	-1.3805
215325_x_at	2.5815	0.0058	3.2957	-2.1476
211141_s_at	2.5783	0.0037	3.5369	-1.8066
215496_at	2.5740	0.0370	2.3254	-3.5289
207751_at	2.5731	0.0080	3.1342	-2.3781
206205_at	2.5718	0.0201	2.6511	-3.0702
216722_at	2.5714	0.0029	3.6628	-1.6309
206415_at	2.5713	0.0382	2.3088	-3.5518
210562_at	2.5668	0.0005	4.6572	-0.3217
215804_at	2.5588	0.0049	3.3873	-2.0174
208357_x_at	2.5581	0.0219	2.6048	-3.1361
219908_at	2.5577	0.0031	3.6267	-1.6811
215970_at	2.5552	0.0414	2.2647	-3.6126
221353_at	2.5535	0.0027	3.6969	-1.5836
208511_at	2.5502	0.0115	2.9449	-2.6495

220738_s_at	2.5485	0.0246	2.5428	-3.2240
220828_s_at	2.5485	0.0146	2.8179	-2.8317
210127_at	2.5475	0.0313	2.4154	-3.4034
207200_at	2.5431	0.0077	3.1503	-2.3550
216387_x_at	2.5418	0.0021	3.8319	-1.3979
216567_at	2.5416	0.0221	2.6009	-3.1416
207166_at	2.5387	0.0234	2.5705	-3.1848
218755_at	2.5385	0.0199	2.6557	-3.0636
215117_at	2.5365	0.0105	2.9901	-2.5847
210941_at	2.5320	0.0224	2.5937	-3.1518
215182_x_at	2.5303	0.0149	2.8068	-2.8476
220645_at	2.5266	0.0169	2.7421	-2.9402
211436_at	2.5210	0.0297	2.4437	-3.3637
207479_at	2.5210	0.0391	2.2955	-3.5702
204708_at	2.5185	0.0181	2.7049	-2.9933
214234_s_at	2.5176	0.0024	3.7638	-1.4913
211694_at	2.5169	0.0007	4.4296	-0.6071
205421_at	2.5118	0.0123	2.9068	-2.7042
217401_at	2.5108	0.0044	3.4500	-1.9289
210698_at	2.5073	0.0334	2.3812	-3.4512
221576_at	2.5068	0.0139	2.8430	-2.7957
204055_s_at	2.5067	0.0150	2.8032	-2.8527
211585_at	2.5055	0.0428	2.2467	-3.6373
217628_at	2.5052	0.0226	2.5874	-3.1608
220965_s_at	2.5050	0.0146	2.8198	-2.8289
207208_at	2.5049	0.0109	2.9701	-2.6133
222086_s_at	2.5027	0.0245	2.5468	-3.2184
221266_s_at	2.5023	0.0165	2.7528	-2.9249
220932_at	2.5022	0.0174	2.7260	-2.9633
221305_s_at	2.5020	0.0263	2.5077	-3.2736
221463_at	2.4992	0.0065	3.2408	-2.2258
206323_x_at	2.4986	0.0295	2.4462	-3.3602
207664_at	2.4945	0.0299	2.4401	-3.3688
213952_s_at	2.4944	0.0255	2.5242	-3.2503
219705_at	2.4938	0.0037	3.5393	-1.8033
217109_at	2.4920	0.0205	2.6403	-3.0856
215977_x_at	2.4873	0.0028	3.6825	-1.6036
205927_s_at	2.4853	0.0096	3.0353	-2.5199
208166_at	2.4842	0.0058	3.3001	-2.1413
205064_at	2.4826	0.0034	3.5722	-1.7572
220289_s_at	2.4753	0.0107	2.9787	-2.6010
208410_x_at	2.4749	0.0082	3.1218	-2.3958
213813_x_at	2.4731	0.0405	2.2765	-3.5965
216469_at	2.4699	0.0395	2.2898	-3.5780
208449_s_at	2.4677	0.0153	2.7950	-2.8645
219480_at	2.4676	0.0045	3.4365	-1.9479
217137_x_at	2.4650	0.0211	2.6252	-3.1070
207570_at	2.4632	0.0238	2.5605	-3.1989
221172_at	2.4619	0.0404	2.2785	-3.5937
221625_at	2.4599	0.0012	4.1105	-1.0224
219701_at	2.4589	0.0008	4.3845	-0.6648
212105_s_at	2.4583	0.0052	3.3556	-2.0624
210914_at	2.4524	0.0307	2.4250	-3.3899
207824_s_at	2.4484	0.0099	3.0198	-2.5420
216922_x_at	2.4446	0.0374	2.3202	-3.5360
214557_at	2.4440	0.0177	2.7172	-2.9758

217213_at	2.4434	0.0362	2.3370	-3.5127
207686_s_at	2.4403	0.0078	3.1445	-2.3633
206018_at	2.4371	0.0230	2.5784	-3.1736
220432_s_at	2.4364	0.0267	2.5010	-3.2831
222098_s_at	2.4320	0.0265	2.5049	-3.2775
221331_x_at	2.4284	0.0231	2.5766	-3.1761
207062_at	2.4265	0.0119	2.9245	-2.6788
214732_at	2.4264	0.0126	2.8943	-2.7220
202485_s_at	2.4241	0.0225	2.5909	-3.1557
210662_at	2.4227	0.0337	2.3763	-3.4581
211681_s_at	2.4158	0.0134	2.8642	-2.7652
216015_s_at	2.4148	0.0144	2.8238	-2.8232
217435_x_at	2.4140	0.0144	2.8238	-2.8232
213382_at	2.4133	0.0065	3.2440	-2.2212
216965_x_at	2.4089	0.0268	2.4989	-3.2860
220649_at	2.4085	0.0139	2.8435	-2.7949
221461_at	2.4069	0.0049	3.3901	-2.0135
210961_s_at	2.4048	0.0192	2.6751	-3.0359
206140_at	2.4047	0.0110	2.9641	-2.6219
215634_at	2.4025	0.0204	2.6422	-3.0828
205768_s_at	2.4013	0.0057	3.3089	-2.1288
210000_s_at	2.4001	0.0024	3.7701	-1.4826
211568_at	2.3984	0.0073	3.1802	-2.3123
207406_at	2.3979	0.0030	3.6429	-1.6586
219790_s_at	2.3960	0.0124	2.9049	-2.7069
216864_at	2.3936	0.0258	2.5181	-3.2590
214346_at	2.3924	0.0130	2.8777	-2.7460
207927_at	2.3919	0.0016	3.9708	-1.2093
208565_at	2.3913	0.0099	3.0187	-2.5436
211032_at	2.3910	0.0362	2.3377	-3.5117
217469_at	2.3904	0.0319	2.4052	-3.4177
AFFX-r2-Bs-thr-M_s_at	2.3863	0.0273	2.4882	-3.3011
215475_at	2.3822	0.0166	2.7520	-2.9261
215327_at	2.3814	0.0009	4.2838	-0.7948
207649_at	2.3811	0.0286	2.4632	-3.3363
214770_at	2.3806	0.0011	4.1722	-0.9407
204865_at	2.3750	0.0173	2.7303	-2.9571
220900_at	2.3749	0.0065	3.2416	-2.2246
208263_at	2.3719	0.0171	2.7355	-2.9497
220850_at	2.3671	0.0344	2.3653	-3.4734
AFFX-hum_alu_at	2.3649	0.0229	2.5806	-3.1704
215463_at	2.3642	0.0107	2.9814	-2.5971
214165_s_at	2.3612	0.0074	3.1719	-2.3241
207385_at	2.3610	0.0426	2.2494	-3.6337
210569_s_at	2.3587	0.0325	2.3960	-3.4306
207958_at	2.3582	0.0347	2.3597	-3.4812
214000_s_at	2.3563	0.0068	3.2145	-2.2633
213705_at	2.3563	0.0041	3.4817	-1.8842
207712_at	2.3507	0.0278	2.4795	-3.3133
213335_s_at	2.3498	0.0027	3.6949	-1.5863
216121_at	2.3485	0.0436	2.2366	-3.6513
221470_s_at	2.3483	0.0230	2.5803	-3.1708
221178_at	2.3482	0.0104	2.9961	-2.5761
214405_at	2.3424	0.0091	3.0666	-2.4749
206157_at	2.3419	0.0054	3.3329	-2.0946
217463_s_at	2.3384	0.0168	2.7437	-2.9380

AFFX-PheX-5_at	2.3334	0.0058	3.2984	-2.1437
219059_s_at	2.3321	0.0207	2.6351	-3.0929
214372_x_at	2.3318	0.0026	3.7120	-1.5627
211904_x_at	2.3308	0.0016	3.9714	-1.2084
221054_s_at	2.3298	0.0218	2.6077	-3.1319
210272_at	2.3295	0.0021	3.8250	-1.4073
216153_x_at	2.3272	0.0116	2.9370	-2.6608
222081_at	2.3270	0.0014	4.0444	-1.1104
216016_at	2.3263	0.0144	2.8271	-2.8185
216254_at	2.3257	0.0014	4.0384	-1.1184
217342_x_at	2.3249	0.0268	2.4985	-3.2866
215669_at	2.3235	0.0277	2.4801	-3.3125
206786_at	2.3232	0.0411	2.2693	-3.6063
208057_s_at	2.3232	0.0299	2.4397	-3.3694
216441_at	2.3231	0.0194	2.6696	-3.0437
211045_s_at	2.3229	0.0118	2.9308	-2.6698
207748_at	2.3200	0.0313	2.4153	-3.4035
210803_at	2.3189	0.0159	2.7733	-2.8956
211461_at	2.3183	0.0003	4.8664	-0.0676
208187_s_at	2.3183	0.0037	3.5335	-1.8115
AFFX-TrpnX-5_at	2.3169	0.0378	2.3142	-3.5443
204666_s_at	2.3169	0.0247	2.5404	-3.2274
208148_at	2.3168	0.0486	2.1774	-3.7320
217112_at	2.3147	0.0006	4.5255	-0.4857
204653_at	2.3142	0.0050	3.3819	-2.0251
220485_s_at	2.3138	0.0193	2.6724	-3.0397
215995_x_at	2.3132	0.0072	3.1864	-2.3034
201374_x_at	2.3126	0.0100	3.0158	-2.5478
206982_at	2.3121	0.0440	2.2323	-3.6571
222181_at	2.3113	0.0108	2.9767	-2.6039
213907_at	2.3093	0.0139	2.8448	-2.7931
214207_s_at	2.3086	0.0032	3.6074	-1.7080
215060_at	2.3086	0.0297	2.4438	-3.3636
208084_at	2.3062	0.0012	4.1159	-1.0152
217396_at	2.3039	0.0047	3.4149	-1.9785
208538_at	2.3019	0.0036	3.5541	-1.7826
213059_at	2.3013	0.0066	3.2352	-2.2337
210256_s_at	2.3002	0.0044	3.4459	-1.9346
208010_s_at	2.2993	0.0320	2.4041	-3.4192
208512_s_at	2.2969	0.0066	3.2333	-2.2365
208386_x_at	2.2921	0.0129	2.8818	-2.7400
215724_at	2.2910	0.0490	2.1728	-3.7382
206420_at	2.2909	0.0262	2.5111	-3.2687
221976_s_at	2.2888	0.0284	2.4682	-3.3293
207363_at	2.2881	0.0293	2.4502	-3.3546
217239_x_at	2.2869	0.0015	4.0230	-1.1391
207739_s_at	2.2866	0.0268	2.4987	-3.2863
221316_at	2.2861	0.0115	2.9432	-2.6520
211209_x_at	2.2860	0.0336	2.3772	-3.4568
215361_at	2.2851	0.0275	2.4854	-3.3051
216318_at	2.2828	0.0009	4.2677	-0.8157
215508_at	2.2822	0.0483	2.1812	-3.7268
221300_at	2.2800	0.0311	2.4189	-3.3985
214615_at	2.2797	0.0480	2.1843	-3.7227
218990_s_at	2.2748	0.0150	2.8049	-2.8503
204162_at	2.2743	0.0190	2.6803	-3.0286

220929_at	2.2741	0.0087	3.0891	-2.4427
216765_at	2.2737	0.0367	2.3293	-3.5235
204286_s_at	2.2734	0.0355	2.3479	-3.4976
201884_at	2.2729	0.0152	2.7962	-2.8628
216803_at	2.2709	0.0266	2.5017	-3.2821
210911_at	2.2682	0.0194	2.6687	-3.0450
210642_at	2.2678	0.0111	2.9603	-2.6274
207811_at	2.2661	0.0364	2.3344	-3.5164
214974_x_at	2.2657	0.0167	2.7480	-2.9318
215632_at	2.2619	0.0366	2.3321	-3.5195
220406_at	2.2617	0.0116	2.9365	-2.6615
213350_at	2.2616	0.0109	2.9697	-2.6140
206943_at	2.2605	0.0200	2.6526	-3.0680
207443_at	2.2583	0.0289	2.4576	-3.3443
214381_at	2.2580	0.0021	3.8423	-1.3836
211214_s_at	2.2574	0.0180	2.7094	-2.9870
211092_s_at	2.2573	0.0041	3.4780	-1.8894
207846_at	2.2573	0.0032	3.6070	-1.7086
205978_at	2.2568	0.0080	3.1349	-2.3771
207537_at	2.2529	0.0295	2.4471	-3.3590
207926_at	2.2519	0.0043	3.4513	-1.9271
217303_s_at	2.2502	0.0006	4.4644	-0.5629
210842_at	2.2490	0.0303	2.4333	-3.3783
210945_at	2.2463	0.0185	2.6929	-3.0105
221209_s_at	2.2434	0.0026	3.7144	-1.5595
222076_at	2.2427	0.0410	2.2696	-3.6059
217291_at	2.2424	0.0146	2.8179	-2.8316
220697_at	2.2423	0.0474	2.1917	-3.7125
216995_x_at	2.2418	0.0112	2.9557	-2.6340
221142_s_at	2.2410	0.0056	3.3193	-2.1139
220388_at	2.2408	0.0069	3.2112	-2.2679
214389_at	2.2392	0.0266	2.5030	-3.2802
217552_x_at	2.2388	0.0245	2.5452	-3.2206
221138_s_at	2.2379	0.0062	3.2680	-2.1869
212488_at	2.2355	0.0121	2.9165	-2.6902
216709_at	2.2355	0.0103	2.9997	-2.5709
206357_at	2.2334	0.0202	2.6475	-3.0752
211619_s_at	2.2323	0.0085	3.1016	-2.4248
207875_at	2.2314	0.0189	2.6816	-3.0267
220978_at	2.2278	0.0192	2.6745	-3.0367
214935_at	2.2277	0.0020	3.8705	-1.3452
208363_s_at	2.2253	0.0245	2.5468	-3.2184
221977_at	2.2251	0.0069	3.2060	-2.2754
216674_at	2.2250	0.0040	3.4920	-1.8698
201852_x_at	2.2248	0.0103	2.9981	-2.5732
220054_at	2.2238	0.0100	3.0173	-2.5456
215226_at	2.2222	0.0341	2.3699	-3.4670
222188_at	2.2214	0.0250	2.5344	-3.2359
221340_at	2.2209	0.0310	2.4197	-3.3973
214568_at	2.2193	0.0137	2.8507	-2.7847
206480_at	2.2193	0.0031	3.6319	-1.6739
216239_at	2.2179	0.0341	2.3696	-3.4673
216099_at	2.2165	0.0182	2.7036	-2.9953
206320_s_at	2.2160	0.0081	3.1234	-2.3935
211324_s_at	2.2142	0.0109	2.9696	-2.6141
219524_s_at	2.2102	0.0249	2.5368	-3.2325

221697_at	2.2093	0.0191	2.6774	-3.0326
220786_s_at	2.2070	0.0335	2.3795	-3.4535
214852_x_at	2.2063	0.0452	2.2173	-3.6777
213966_at	2.2056	0.0207	2.6351	-3.0930
219448_at	2.2039	0.0129	2.8835	-2.7377
210297_s_at	2.2012	0.0158	2.7779	-2.8890
214562_at	2.2007	0.0065	3.2424	-2.2235
206717_at	2.1996	0.0058	3.2986	-2.1434
206859_s_at	2.1969	0.0075	3.1687	-2.3288
208844_at	2.1954	0.0456	2.2125	-3.6842
201291_s_at	2.1950	0.0374	2.3191	-3.5376
217360_x_at	2.1939	0.0068	3.2171	-2.2596
215609_at	2.1938	0.0192	2.6755	-3.0354
214712_at	2.1928	0.0258	2.5187	-3.2581
211329_x_at	2.1920	0.0303	2.4334	-3.3781
204312_x_at	2.1903	0.0081	3.1234	-2.3936
220220_at	2.1901	0.0113	2.9510	-2.6408
215993_at	2.1882	0.0122	2.9122	-2.6964
214676_x_at	2.1881	0.0205	2.6401	-3.0858
206134_at	2.1879	0.0215	2.6138	-3.1233
207161_at	2.1874	0.0366	2.3315	-3.5204
221288_at	2.1865	0.0080	3.1305	-2.3834
211442_x_at	2.1846	0.0368	2.3283	-3.5248
214539_at	2.1840	0.0094	3.0493	-2.4997
204623_at	2.1837	0.0090	3.0699	-2.4702
206130_s_at	2.1829	0.0067	3.2268	-2.2457
208341_x_at	2.1818	0.0179	2.7121	-2.9832
216802_at	2.1808	0.0277	2.4798	-3.3129
222249_at	2.1806	0.0277	2.4806	-3.3118
206057_x_at	2.1786	0.0225	2.5917	-3.1546
211786_at	2.1771	0.0394	2.2920	-3.5750
211604_x_at	2.1740	0.0203	2.6448	-3.0791
218207_s_at	2.1731	0.0136	2.8557	-2.7775
216297_at	2.1724	0.0289	2.4580	-3.3436
222322_at	2.1723	0.0202	2.6483	-3.0741
221126_at	2.1710	0.0208	2.6322	-3.0970
209599_s_at	2.1697	0.0073	3.1776	-2.3160
220494_s_at	2.1691	0.0015	4.0067	-1.1609
216638_s_at	2.1688	0.0319	2.4060	-3.4165
216216_at	2.1670	0.0040	3.4932	-1.8681
220832_at	2.1664	0.0118	2.9316	-2.6685
219970_at	2.1649	0.0381	2.3099	-3.5503
216494_at	2.1630	0.0104	2.9975	-2.5741
216245_at	2.1626	0.0299	2.4395	-3.3696
215166_at	2.1612	0.0459	2.2093	-3.6885
209269_s_at	2.1601	0.0053	3.3456	-2.0766
217402_at	2.1590	0.0183	2.7003	-2.9999
213303_x_at	2.1582	0.0040	3.4921	-1.8696
217242_at	2.1580	0.0183	2.6993	-3.0014
216311_at	2.1577	0.0161	2.7673	-2.9041
220735_s_at	2.1572	0.0101	3.0130	-2.5517
208460_at	2.1565	0.0235	2.5674	-3.1891
207901_at	2.1561	0.0152	2.7988	-2.8590
210862_s_at	2.1514	0.0019	3.8815	-1.3301
215425_at	2.1503	0.0192	2.6757	-3.0351
205649_s_at	2.1463	0.0274	2.4859	-3.3043

220928_s_at	2.1456	0.0222	2.5989	-3.1444
220725_x_at	2.1456	0.0410	2.2703	-3.6049
215615_x_at	2.1433	0.0012	4.1368	-0.9875
206757_at	2.1428	0.0156	2.7841	-2.8800
205713_s_at	2.1412	0.0130	2.8783	-2.7451
211520_s_at	2.1402	0.0112	2.9582	-2.6305
216491_x_at	2.1387	0.0156	2.7822	-2.8828
219412_at	2.1385	0.0382	2.3086	-3.5521
216519_s_at	2.1375	0.0284	2.4675	-3.3303
215676_at	2.1332	0.0108	2.9745	-2.6070
203736_s_at	2.1314	0.0009	4.2671	-0.8165
201537_s_at	2.1303	0.0033	3.6009	-1.7170
210765_at	2.1282	0.0188	2.6857	-3.0209
211782_at	2.1258	0.0376	2.3168	-3.5408
220271_x_at	2.1247	0.0104	2.9934	-2.5799
220691_at	2.1237	0.0017	3.9574	-1.2273
220348_at	2.1235	0.0166	2.7516	-2.9266
211094_s_at	2.1222	0.0391	2.2958	-3.5698
213660_s_at	2.1219	0.0315	2.4116	-3.4088
215249_at	2.1211	0.0287	2.4613	-3.3391
210743_s_at	2.1204	0.0019	3.8740	-1.3403
220503_at	2.1204	0.0481	2.1828	-3.7246
208356_x_at	2.1200	0.0158	2.7781	-2.8886
206942_s_at	2.1169	0.0343	2.3669	-3.4712
221337_s_at	2.1164	0.0213	2.6190	-3.1158
213114_at	2.1113	0.0200	2.6525	-3.0682
205185_at	2.1109	0.0108	2.9742	-2.6075
216137_s_at	2.1105	0.0393	2.2937	-3.5727
222176_at	2.1101	0.0317	2.4093	-3.4119
216812_at	2.1094	0.0063	3.2587	-2.2003
210422_x_at	2.1093	0.0021	3.8384	-1.3890
207661_s_at	2.1073	0.0272	2.4907	-3.2976
220667_at	2.1063	0.0265	2.5037	-3.2793
207274_at	2.1060	0.0189	2.6828	-3.0249
222102_at	2.1058	0.0212	2.6231	-3.1100
220232_at	2.1052	0.0180	2.7071	-2.9902
215889_at	2.1052	0.0194	2.6704	-3.0426
206425_s_at	2.1022	0.0090	3.0702	-2.4697
207319_s_at	2.1011	0.0194	2.6684	-3.0455
207764_s_at	2.0986	0.0084	3.1066	-2.4175
206136_at	2.0971	0.0126	2.8958	-2.7200
AFFX-ThrX-3_at	2.0939	0.0024	3.7576	-1.4998
216710_x_at	2.0938	0.0393	2.2926	-3.5742
222314_x_at	2.0931	0.0127	2.8933	-2.7236
206164_at	2.0922	0.0167	2.7471	-2.9330
215382_x_at	2.0902	0.0086	3.0928	-2.4373
216149_at	2.0892	0.0478	2.1868	-3.7192
215891_s_at	2.0885	0.0199	2.6563	-3.0628
208509_s_at	2.0874	0.0187	2.6898	-3.0149
207718_x_at	2.0841	0.0445	2.2253	-3.6668
204543_at	2.0840	0.0057	3.3071	-2.1314
207489_at	2.0837	0.0414	2.2652	-3.6119
201265_at	2.0806	0.0034	3.5796	-1.7468
206224_at	2.0794	0.0189	2.6819	-3.0262
206642_at	2.0790	0.0431	2.2432	-3.6421
203699_s_at	2.0755	0.0239	2.5586	-3.2017

221397_at	2.0729	0.0494	2.1690	-3.7433
206862_at	2.0728	0.0035	3.5662	-1.7656
207259_at	2.0724	0.0198	2.6581	-3.0602
220651_s_at	2.0714	0.0117	2.9327	-2.6671
217366_at	2.0696	0.0187	2.6877	-3.0179
215748_at	2.0692	0.0245	2.5466	-3.2186
211306_s_at	2.0667	0.0410	2.2698	-3.6057
216612_x_at	2.0662	0.0153	2.7925	-2.8681
211788_s_at	2.0656	0.0176	2.7216	-2.9696
213774_s_at	2.0654	0.0385	2.3040	-3.5585
221996_s_at	2.0637	0.0371	2.3236	-3.5313
211915_s_at	2.0626	0.0212	2.6217	-3.1120
204230_s_at	2.0622	0.0400	2.2837	-3.5864
217426_at	2.0613	0.0312	2.4165	-3.4019
206490_at	2.0598	0.0114	2.9497	-2.6426
207367_at	2.0589	0.0217	2.6091	-3.1300
216785_at	2.0577	0.0080	3.1309	-2.3828
204782_at	2.0553	0.0475	2.1905	-3.7141
219815_at	2.0549	0.0007	4.4454	-0.5870
205254_x_at	2.0532	0.0071	3.1936	-2.2931
204938_s_at	2.0521	0.0449	2.2205	-3.6732
212113_at	2.0514	0.0017	3.9556	-1.2297
202718_at	2.0486	0.0067	3.2282	-2.2437
222007_s_at	2.0471	0.0437	2.2361	-3.6520
210196_s_at	2.0463	0.0331	2.3847	-3.4463
213429_at	2.0428	0.0189	2.6826	-3.0253
216704_at	2.0426	0.0189	2.6829	-3.0248
205040_at	2.0423	0.0177	2.7178	-2.9750
213426_s_at	2.0404	0.0139	2.8423	-2.7967
207354_at	2.0390	0.0324	2.3962	-3.4303
216419_at	2.0360	0.0183	2.7012	-2.9987
212141_at	2.0346	0.0073	3.1832	-2.3080
211402_x_at	2.0343	0.0456	2.2122	-3.6846
221457_s_at	2.0304	0.0449	2.2209	-3.6727
210439_at	2.0294	0.0137	2.8530	-2.7814
215368_at	2.0291	0.0417	2.2610	-3.6177
213125_at	2.0251	0.0007	4.3899	-0.6579
213167_s_at	2.0245	0.0454	2.2146	-3.6813
207637_at	2.0235	0.0495	2.1679	-3.7449
205764_at	2.0231	0.0436	2.2370	-3.6507
206960_at	2.0230	0.0141	2.8359	-2.8059
205816_at	2.0227	0.0339	2.3722	-3.4637
205450_at	2.0220	0.0260	2.5137	-3.2651
206620_at	2.0213	0.0393	2.2930	-3.5737
219422_at	2.0206	0.0241	2.5535	-3.2089
211920_at	2.0203	0.0243	2.5500	-3.2138
205612_at	2.0199	0.0191	2.6772	-3.0329
222328_x_at	2.0199	0.0077	3.1522	-2.3523
222360_at	2.0189	0.0166	2.7505	-2.9282
206590_x_at	2.0159	0.0413	2.2658	-3.6112
216059_at	2.0157	0.0370	2.3261	-3.5278
214575_s_at	2.0156	0.0049	3.3914	-2.0117
215929_at	2.0152	0.0500	2.1624	-3.7523
208366_at	2.0143	0.0034	3.5785	-1.7483
220012_at	2.0138	0.0191	2.6779	-3.0319
221926_s_at	2.0128	0.0064	3.2463	-2.2179

219148_at	2.0124	0.0471	2.1941	-3.7092
217464_at	2.0101	0.0114	2.9475	-2.6457
216663_s_at	2.0096	0.0327	2.3922	-3.4359
203027_s_at	2.0096	0.0063	3.2576	-2.2019
213789_at	2.0080	0.0078	3.1433	-2.3651
220225_at	2.0069	0.0241	2.5553	-3.2064
220662_s_at	2.0051	0.0210	2.6281	-3.1029
206873_at	2.0025	0.0140	2.8394	-2.8008
204818_at	2.0010	0.0460	2.2070	-3.6917
		Down-regulated gene probes		
218029_at	-3.1051	0.0016	-3.9613	-1.2220
208887_at	-2.9052	0.0306	-2.4269	-3.3873
203861_s_at	-2.7591	0.0094	-3.0507	-2.4978
201481_s_at	-2.7153	0.0015	-4.0248	-1.1366
201234_at	-2.6050	0.0073	-3.1814	-2.3106
212969_x_at	-2.5990	0.0102	-3.0063	-2.5614
202504_at	-2.5894	0.0007	-4.4288	-0.6081
55093_at	-2.5767	0.0082	-3.1218	-2.3958
206467_x_at	-2.5603	0.0092	-3.0602	-2.4841
1405_i_at	-2.5542	0.0031	-3.6310	-1.6751
210514_x_at	-2.5421	0.0127	-2.8913	-2.7265
208751_at	-2.5399	0.0110	-2.9667	-2.6182
209407_s_at	-2.5136	0.0071	-3.1965	-2.2890
222362_at	-2.5107	0.0018	-3.9255	-1.2704
221972_s_at	-2.5084	0.0090	-3.0732	-2.4655
205658_s_at	-2.5065	0.0045	-3.4349	-1.9502
205384_at	-2.5020	0.0205	-2.6393	-3.0869
200707_at	-2.4933	0.0219	-2.6053	-3.1353
209728_at	-2.4925	0.0379	-2.3132	-3.5457
211529_x_at	-2.4581	0.0070	-3.2005	-2.2833
216662_at	-2.4489	0.0127	-2.8917	-2.7258
204805_s_at	-2.4384	0.0140	-2.8394	-2.8009
218359_at	-2.4275	0.0042	-3.4671	-1.9047
213417_at	-2.4220	0.0007	-4.3876	-0.6609
215464_s_at	-2.4177	0.0036	-3.5456	-1.7945
203815_at	-2.3982	0.0287	-2.4615	-3.3387
212078_s_at	-2.3964	0.0179	-2.7115	-2.9839
222192_s_at	-2.3712	0.0007	-4.4205	-0.6188
203281_s_at	-2.3621	0.0043	-3.4582	-1.9172
213082_s_at	-2.3427	0.0008	-4.3506	-0.7084
209458_x_at	-2.3422	0.0149	-2.8083	-2.8454
217422_s_at	-2.3398	0.0060	-3.2787	-2.1717
201895_at	-2.3397	0.0196	-2.6649	-3.0505
202308_at	-2.3389	0.0250	-2.5359	-3.2338
222025_s_at	-2.3332	0.0048	-3.3952	-2.0063
202326_at	-2.3300	0.0350	-2.3549	-3.4879
215714_s_at	-2.3153	0.0309	-2.4216	-3.3947
203456_at	-2.3124	0.0085	-3.1018	-2.4244
204018_x_at	-2.3068	0.0162	-2.7633	-2.9099
200789_at	-2.2996	0.0084	-3.1084	-2.4151
218345_at	-2.2738	0.0303	-2.4328	-3.3790
209253_at	-2.2725	0.0125	-2.9013	-2.7121
204157_s_at	-2.2642	0.0153	-2.7926	-2.8680
209190_s_at	-2.2571	0.0103	-3.0016	-2.5681
200866_s_at	-2.2552	0.0148	-2.8116	-2.8406
212005_at	-2.2520	0.0191	-2.6780	-3.0317

210086_at	-2.2452	0.0022	-3.8098	-1.4280
209213_at	-2.2378	0.0172	-2.7311	-2.9559
202556_s_at	-2.2333	0.0123	-2.9072	-2.7036
201580_s_at	-2.2328	0.0417	-2.2608	-3.6180
209516_at	-2.2176	0.0009	-4.2968	-0.7779
218556_at	-2.2175	0.0084	-3.1090	-2.4141
217414_x_at	-2.2154	0.0205	-2.6402	-3.0856
221534_at	-2.2112	0.0171	-2.7340	-2.9519
201440_at	-2.2056	0.0083	-3.1154	-2.4049
221432_s_at	-2.1995	0.0421	-2.2563	-3.6242
1773_at	-2.1886	0.0026	-3.7261	-1.5432
203118_at	-2.1861	0.0157	-2.7794	-2.8869
221856_s_at	-2.1847	0.0025	-3.7395	-1.5248
215273_s_at	-2.1726	0.0057	-3.3067	-2.1319
211911_x_at	-2.1691	0.0329	-2.3893	-3.4400
204433_s_at	-2.1571	0.0270	-2.4946	-3.2920
211167_s_at	-2.1474	0.0057	-3.3090	-2.1287
221521_s_at	-2.1425	0.0043	-3.4569	-1.9191
203766_s_at	-2.1317	0.0255	-2.5240	-3.2506
213706_at	-2.1313	0.0031	-3.6234	-1.6858
219905_at	-2.1227	0.0049	-3.3841	-2.0220
205582_s_at	-2.1122	0.0182	-2.7036	-2.9952
212630_at	-2.1049	0.0113	-2.9523	-2.6389
200001_at	-2.1026	0.0291	-2.4544	-3.3487
208395_s_at	-2.0999	0.0007	-4.4460	-0.5863
218476_at	-2.0972	0.0251	-2.5338	-3.2368
208611_s_at	-2.0925	0.0169	-2.7415	-2.9411
209262_s_at	-2.0911	0.0350	-2.3556	-3.4869
220261_s_at	-2.0882	0.0096	-3.0353	-2.5198
221512_at	-2.0817	0.0209	-2.6306	-3.0994
211745_x_at	-2.0749	0.0206	-2.6367	-3.0906
201787_at	-2.0737	0.0190	-2.6792	-3.0301
218995_s_at	-2.0709	0.0239	-2.5590	-3.2011
205243_at	-2.0654	0.0089	-3.0774	-2.4595
218672_at	-2.0610	0.0235	-2.5687	-3.1873
208707_at	-2.0564	0.0480	-2.1845	-3.7223
212080_at	-2.0542	0.0381	-2.3092	-3.5513
201284_s_at	-2.0471	0.0206	-2.6363	-3.0912
201258_at	-2.0449	0.0272	-2.4898	-3.2989
209432_s_at	-2.0431	0.0448	-2.2215	-3.6719
203126_at	-2.0422	0.0031	-3.6325	-1.6731
217934_x_at	-2.0417	0.0444	-2.2268	-3.6647
211779_x_at	-2.0219	0.0359	-2.3412	-3.5068
213196_at	-2.0069	0.0104	-2.9947	-2.5781
200986_at	-2.0042	0.0303	-2.4327	-3.3792
212738_at	-2.0008	0.0130	-2.8810	-2.7412

Table 3 — List of Gene Ontology terms associated with DEGs of DMNV

Category	GO	Term	Gene count	Gene %	p-value
		Up-regulated genes			
BP	GO:0007165	signal transduction	50.0000	9.5785	0.0011
BP	GO:0045944	positive regulation of transcription from RNA polymerase II promoter	36.0000	6.8966	0.0529
BP	GO:0000122	negative regulation of transcription from RNA polymerase II promoter	34.0000	6.5134	0.0020
BP	GO:0008283	cell proliferation	24.0000	4.5977	0.0002
BP	GO:0008284	positive regulation of cell proliferation	24.0000	4.5977	0.0039
BP	GO:0007155	cell adhesion	22.0000	4.2146	0.0127
BP	GO:0045893	positive regulation of transcription, DNA-templated	22.0000	4.2146	0.0386
BP	GO:0043066	negative regulation of apoptotic process	21.0000	4.0230	0.0218
BP	GO:0045892	negative regulation of transcription, DNA-templated	21.0000	4.0230	0.0492
BP	GO:0007275	multicellular organism development	21.0000	4.0230	0.0714
BP	GO:0006954	inflammatory response	20.0000	3.8314	0.0070
BP	GO:0007283	spermatogenesis	17.0000	3.2567	0.0562
BP	GO:0042981	regulation of apoptotic process	15.0000	2.8736	0.0019
BP	GO:0007268	chemical synaptic transmission	15.0000	2.8736	0.0054
BP	GO:0042493	response to drug	15.0000	2.8736	0.0354
BP	GO:0007204	positive regulation of cytosolic calcium ion concentration	13.0000	2.4904	0.0003
BP	GO:0001501	skeletal system development	13.0000	2.4904	0.0003
BP	GO:0030198	extracellular matrix organization	13.0000	2.4904	0.0068
BP	GO:0007267	cell-cell signaling	13.0000	2.4904	0.0418
BP	GO:0007166	cell surface receptor signaling pathway	13.0000	2.4904	0.0663
BP	GO:0007229	integrin-mediated signaling pathway	11.0000	2.1073	0.0003
BP	GO:0016477	cell migration	11.0000	2.1073	0.0180
BP	GO:0042127	regulation of cell proliferation	11.0000	2.1073	0.0280
BP	GO:0007601	visual perception	11.0000	2.1073	0.0449
BP	GO:0009611	response to wounding	10.0000	1.9157	0.0000
BP	GO:0000082	G1/S transition of mitotic cell cycle	10.0000	1.9157	0.0017
BP	GO:0050900	leukocyte migration	10.0000	1.9157	0.0057
BP	GO:0006968	cellular defense response	9.0000	1.7241	0.0002
BP	GO:0006928	movement of cell or subcellular component	9.0000	1.7241	0.0022
BP	GO:0071456	cellular response to hypoxia	9.0000	1.7241	0.0043
BP	GO:0001666	response to hypoxia	9.0000	1.7241	0.0928
BP	GO:0007200	phospholipase C-activating G-protein coupled receptor signaling pathway	8.0000	1.5326	0.0019
BP	GO:0008584	male gonad development	8.0000	1.5326	0.0133
BP	GO:0010468	regulation of gene expression	8.0000	1.5326	0.0181
BP	GO:0018105	peptidyl-serine phosphorylation	8.0000	1.5326	0.0517
BP	GO:0014068	positive regulation of phosphatidylinositol 3-kinase signaling	7.0000	1.3410	0.0079
BP	GO:0007265	Ras protein signal transduction	7.0000	1.3410	0.0112
BP	GO:0060333	interferon-gamma-mediated signaling pathway	7.0000	1.3410	0.0120
BP	GO:0009952	anterior/posterior pattern specification	7.0000	1.3410	0.0206
BP	GO:0050731	positive regulation of peptidyl-tyrosine phosphorylation	7.0000	1.3410	0.0229
BP	GO:0007160	cell-matrix adhesion	7.0000	1.3410	0.0342
BP	GO:0045471	response to ethanol	7.0000	1.3410	0.0636
BP	GO:0000187	activation of MAPK activity	7.0000	1.3410	0.0684
BP	GO:0030168	platelet activation	7.0000	1.3410	0.0896
BP	GO:0016925	protein sumoylation	7.0000	1.3410	0.0954
BP	GO:0015721	bile acid and bile salt transport	6.0000	1.1494	0.0007

BP	GO:0043408	regulation of MAPK cascade	6.0000	1.1494	0.0046
BP	GO:0021766	hippocampus development	6.0000	1.1494	0.0170
BP	GO:0043627	response to estrogen	6.0000	1.1494	0.0303
BP	GO:0070098	chemokine-mediated signaling pathway	6.0000	1.1494	0.0420
BP	GO:0006805	xenobiotic metabolic process	6.0000	1.1494	0.0586
BP	GO:0043410	positive regulation of MAPK cascade	6.0000	1.1494	0.0668
BP	GO:0043085	positive regulation of catalytic activity	6.0000	1.1494	0.0668
BP	GO:0006813	potassium ion transport	6.0000	1.1494	0.0696
BP	GO:0007517	muscle organ development	6.0000	1.1494	0.0914
BP	GO:0000083	regulation of transcription involved in G1/S transition of mitotic cell cycle	5.0000	0.9579	0.0030
BP	GO:0009954	proximal/distal pattern formation	5.0000	0.9579	0.0036
BP	GO:0042755	eating behavior	5.0000	0.9579	0.0048
BP	GO:0009411	response to UV	5.0000	0.9579	0.0257
BP	GO:0014823	response to activity	5.0000	0.9579	0.0278
BP	GO:0031100	organ regeneration	5.0000	0.9579	0.0370
BP	GO:0010862	positive regulation of pathway-restricted SMAD protein phosphorylation	5.0000	0.9579	0.0395
BP	GO:0042542	response to hydrogen peroxide	5.0000	0.9579	0.0477
BP	GO:0034097	response to cytokine	5.0000	0.9579	0.0506
BP	GO:0051216	cartilage development	5.0000	0.9579	0.0737
BP	GO:0007338	single fertilization	5.0000	0.9579	0.0737
BP	GO:0071407	cellular response to organic cyclic compound	5.0000	0.9579	0.0737
BP	GO:0009612	response to mechanical stimulus	5.0000	0.9579	0.0737
BP	GO:0045669	positive regulation of osteoblast differentiation	5.0000	0.9579	0.0774
BP	GO:0060395	SMAD protein signal transduction	5.0000	0.9579	0.0850
BP	GO:0030574	collagen catabolic process	5.0000	0.9579	0.0930
BP	GO:0042632	cholesterol homeostasis	5.0000	0.9579	0.0930
BP	GO:0008217	regulation of blood pressure	5.0000	0.9579	0.0971
BP	GO:0002690	positive regulation of leukocyte chemotaxis	4.0000	0.7663	0.0116
BP	GO:0009083	branched-chain amino acid catabolic process	4.0000	0.7663	0.0135
BP	GO:0034113	heterotypic cell-cell adhesion	4.0000	0.7663	0.0203
BP	GO:0051439	regulation of ubiquitin-protein ligase activity involved in mitotic cell cycle	4.0000	0.7663	0.0229
BP	GO:0048589	developmental growth	4.0000	0.7663	0.0286
BP	GO:0051281	positive regulation of release of sequestered calcium ion into cytosol	4.0000	0.7663	0.0349
BP	GO:0021983	pituitary gland development	4.0000	0.7663	0.0384
BP	GO:0002474	antigen processing and presentation of peptide antigen via MHC class I	4.0000	0.7663	0.0457
BP	GO:0000077	DNA damage checkpoint	4.0000	0.7663	0.0457
BP	GO:0098656	anion transmembrane transport	4.0000	0.7663	0.0457
BP	GO:1900026	positive regulation of substrate adhesion-dependent cell spreading	4.0000	0.7663	0.0537
BP	GO:1902042	negative regulation of extrinsic apoptotic signaling pathway via death domain receptors	4.0000	0.7663	0.0580
BP	GO:0001890	placenta development	4.0000	0.7663	0.0669
BP	GO:0006641	triglyceride metabolic process	4.0000	0.7663	0.0669
BP	GO:0007188	adenylate cyclase-modulating G-protein coupled receptor signaling pathway	4.0000	0.7663	0.0764
BP	GO:0048813	dendrite morphogenesis	4.0000	0.7663	0.0764
BP	GO:0006953	acute-phase response	4.0000	0.7663	0.0865
BP	GO:0048468	cell development	4.0000	0.7663	0.0917
BP	GO:0030326	embryonic limb morphogenesis	4.0000	0.7663	0.0917
BP	GO:0000278	mitotic cell cycle	4.0000	0.7663	0.0971
BP	GO:0048839	inner ear development	4.0000	0.7663	0.0971
BP	GO:0035726	common myeloid progenitor cell proliferation	3.0000	0.5747	0.0138

BP	GO:0090277	positive regulation of peptide hormone secretion	3.0000	0.5747	0.0181
BP	GO:0002827	positive regulation of T-helper 1 type immune response	3.0000	0.5747	0.0181
BP	GO:0046887	positive regulation of hormone secretion	3.0000	0.5747	0.0181
BP	GO:0010837	regulation of keratinocyte proliferation	3.0000	0.5747	0.0181
BP	GO:0044320	cellular response to leptin stimulus	3.0000	0.5747	0.0229
BP	GO:0070327	thyroid hormone transport	3.0000	0.5747	0.0229
BP	GO:0034116	positive regulation of heterotypic cell-cell adhesion	3.0000	0.5747	0.0337
BP	GO:0021846	cell proliferation in forebrain	3.0000	0.5747	0.0398
BP	GO:0043950	positive regulation of cAMP-mediated signaling	3.0000	0.5747	0.0398
BP	GO:0050901	leukocyte tethering or rolling	3.0000	0.5747	0.0462
BP	GO:0070306	lens fiber cell differentiation	3.0000	0.5747	0.0462
BP	GO:0043518	negative regulation of DNA damage response, signal transduction by p53 class mediator	3.0000	0.5747	0.0462
BP	GO:0010001	glial cell differentiation	3.0000	0.5747	0.0529
BP	GO:0045821	positive regulation of glycolytic process	3.0000	0.5747	0.0529
BP	GO:0019395	fatty acid oxidation	3.0000	0.5747	0.0529
BP	GO:0060065	uterus development	3.0000	0.5747	0.0529
BP	GO:0001964	startle response	3.0000	0.5747	0.0600
BP	GO:0050905	neuromuscular process	3.0000	0.5747	0.0600
BP	GO:0010613	positive regulation of cardiac muscle hypertrophy	3.0000	0.5747	0.0674
BP	GO:0070848	response to growth factor	3.0000	0.5747	0.0674
BP	GO:0008206	bile acid metabolic process	3.0000	0.5747	0.0674
BP	GO:0090201	negative regulation of release of cytochrome c from mitochondria	3.0000	0.5747	0.0751
BP	GO:0043623	cellular protein complex assembly	3.0000	0.5747	0.0830
BP	GO:0010039	response to iron ion	3.0000	0.5747	0.0830
BP	GO:0021772	olfactory bulb development	3.0000	0.5747	0.0912
BP	GO:0008156	negative regulation of DNA replication	3.0000	0.5747	0.0912
BP	GO:0042246	tissue regeneration	3.0000	0.5747	0.0912
BP	GO:0071157	negative regulation of cell cycle arrest	3.0000	0.5747	0.0996
BP	GO:1900625	positive regulation of monocyte aggregation	2.0000	0.3831	0.0784
BP	GO:0032787	monocarboxylic acid metabolic process	2.0000	0.3831	0.0784
BP	GO:0034334	adherens junction maintenance	2.0000	0.3831	0.0784
BP	GO:0009263	deoxyribonucleotide biosynthetic process	2.0000	0.3831	0.0784
CC	GO:0005634	nucleus	161.0000	30.8429	0.0190
CC	GO:0005886	plasma membrane	131.0000	25.0958	0.0047
CC	GO:0005887	integral component of plasma membrane	72.0000	13.7931	0.0000
CC	GO:0016020	membrane	68.0000	13.0268	0.0775
CC	GO:0005576	extracellular region	64.0000	12.2605	0.0005
CC	GO:0005615	extracellular space	51.0000	9.7701	0.0054
CC	GO:0009986	cell surface	25.0000	4.7893	0.0071
CC	GO:0030054	cell junction	22.0000	4.2146	0.0080
CC	GO:0043234	protein complex	18.0000	3.4483	0.0380
CC	GO:0072562	blood microparticle	9.0000	1.7241	0.0427
CC	GO:0031090	organelle membrane	8.0000	1.5326	0.0070
CC	GO:0030529	intracellular ribonucleoprotein complex	8.0000	1.5326	0.0615
CC	GO:0045177	apical part of cell	7.0000	1.3410	0.0126
CC	GO:0042383	sarcolemma	7.0000	1.3410	0.0221
CC	GO:0031594	neuromuscular junction	6.0000	1.1494	0.0133
CC	GO:0030666	endocytic vesicle membrane	6.0000	1.1494	0.0272
CC	GO:0031093	platelet alpha granule lumen	5.0000	0.9579	0.0525
CC	GO:0031527	filopodium membrane	3.0000	0.5747	0.0694
CC	GO:0097129	cyclin D2-CDK4 complex	2.0000	0.3831	0.0751
CC	GO:0005971	ribonucleoside-diphosphate reductase complex	2.0000	0.3831	0.0751
CC	GO:0000942	condensed nuclear chromosome outer kinetochore	2.0000	0.3831	0.0988

MF	GO:0046872	metal ion binding	68.0000	13.0268	0.0882
MF	GO:0003677	DNA binding	57.0000	10.9195	0.0737
MF	GO:0008270	zinc ion binding	41.0000	7.8544	0.0916
MF	GO:0003700	transcription factor activity, sequence-specific DNA binding	36.0000	6.8966	0.0564
MF	GO:0042802	identical protein binding	29.0000	5.5556	0.0637
MF	GO:0003682	chromatin binding	19.0000	3.6398	0.0239
MF	GO:0000978	RNA polymerase II core promoter proximal region sequence-specific DNA binding	18.0000	3.4483	0.0198
MF	GO:0005102	receptor binding	17.0000	3.2567	0.0360
MF	GO:0001077	transcriptional activator activity, RNA polymerase II core promoter proximal region sequence-specific binding	14.0000	2.6820	0.0141
MF	GO:0008083	growth factor activity	11.0000	2.1073	0.0144
MF	GO:0046983	protein dimerization activity	9.0000	1.7241	0.0559
MF	GO:0008201	heparin binding	9.0000	1.7241	0.0754
MF	GO:0004222	metalloendopeptidase activity	8.0000	1.5326	0.0367
MF	GO:0020037	heme binding	8.0000	1.5326	0.0848
MF	GO:0004497	monooxygenase activity	7.0000	1.3410	0.0051
MF	GO:0050839	cell adhesion molecule binding	7.0000	1.3410	0.0071
MF	GO:0005179	hormone activity	7.0000	1.3410	0.0453
MF	GO:0008009	chemokine activity	5.0000	0.9579	0.0455
MF	GO:0016705	oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen	5.0000	0.9579	0.0717
MF	GO:0019903	protein phosphatase binding	5.0000	0.9579	0.0954
MF	GO:0015347	sodium-independent organic anion transmembrane transporter activity	4.0000	0.7663	0.0191
MF	GO:0005158	insulin receptor binding	4.0000	0.7663	0.0528
MF	GO:0050661	NADP binding	4.0000	0.7663	0.0710
MF	GO:0004879	RNA polymerase II transcription factor activity, ligand-activated sequence-specific DNA binding	4.0000	0.7663	0.0760
MF	GO:0015125	bile acid transmembrane transporter activity	3.0000	0.5747	0.0145
MF	GO:0038052	RNA polymerase II transcription factor activity, estrogen-activated sequence-specific DNA binding	2.0000	0.3831	0.0543
MF	GO:0004748	ribonucleoside-diphosphate reductase activity, thioredoxin disulfide as acceptor	2.0000	0.3831	0.0804
		Down-regulated genes			
BP	GO:0006120	mitochondrial electron transport, NADH to ubiquinone	3.0000	12.5000	0.0019
BP	GO:0032981	mitochondrial respiratory chain complex I assembly	2.0000	8.3333	0.0794
BP	GO:0007584	response to nutrient	2.0000	8.3333	0.0926
CC	GO:0005737	cytoplasm	11.0000	45.8333	0.0698
CC	GO:0005829	cytosol	9.0000	37.5000	0.0339
CC	GO:0016020	membrane	7.0000	29.1667	0.0416
CC	GO:0005739	mitochondrion	5.0000	20.8333	0.0722
CC	GO:0005743	mitochondrial inner membrane	4.0000	16.6667	0.0154
CC	GO:0005747	mitochondrial respiratory chain complex I	2.0000	8.3333	0.0575
MF	GO:0042803	protein homodimerization activity	4.0000	16.6667	0.0750
MF	GO:0008137	NADH dehydrogenase (ubiquinone) activity	2.0000	8.3333	0.0634

Table 4 — List of Gene Ontology terms associated with DEGs of ION

Category	GO	Term	Gene count	Gene %	p-value
		Up-regulated genes			
BP	GO:0007165	signal transduction	40.0000	8.3333	0.0351
BP	GO:0007155	cell adhesion	23.0000	4.7917	0.0027
BP	GO:0045893	positive regulation of transcription, DNA-templated	23.0000	4.7917	0.0101
BP	GO:0007275	multicellular organism development	22.0000	4.5833	0.0216
BP	GO:0043547	positive regulation of GTPase activity	22.0000	4.5833	0.0435
BP	GO:0006955	immune response	20.0000	4.1667	0.0094
BP	GO:0006468	protein phosphorylation	20.0000	4.1667	0.0202
BP	GO:0030198	extracellular matrix organization	19.0000	3.9583	0.0000
BP	GO:0006508	proteolysis	19.0000	3.9583	0.0761
BP	GO:0006954	inflammatory response	18.0000	3.7500	0.0145
BP	GO:0008284	positive regulation of cell proliferation	18.0000	3.7500	0.0757
BP	GO:0007283	spermatogenesis	16.0000	3.3333	0.0590
BP	GO:0007166	cell surface receptor signaling pathway	15.0000	3.1250	0.0090
BP	GO:0008283	cell proliferation	15.0000	3.1250	0.0751
BP	GO:0007268	chemical synaptic transmission	14.0000	2.9167	0.0073
BP	GO:0007267	cell-cell signaling	14.0000	2.9167	0.0114
BP	GO:0042981	regulation of apoptotic process	12.0000	2.5000	0.0182
BP	GO:0010628	positive regulation of gene expression	12.0000	2.5000	0.0637
BP	GO:0002576	platelet degranulation	10.0000	2.0833	0.0011
BP	GO:0018108	peptidyl-tyrosine phosphorylation	10.0000	2.0833	0.0145
BP	GO:0007507	heart development	10.0000	2.0833	0.0399
BP	GO:0007601	visual perception	10.0000	2.0833	0.0645
BP	GO:0042060	wound healing	9.0000	1.8750	0.0008
BP	GO:0007160	cell-matrix adhesion	9.0000	1.8750	0.0018
BP	GO:0007179	transforming growth factor beta receptor signaling pathway	9.0000	1.8750	0.0021
BP	GO:0001501	skeletal system development	9.0000	1.8750	0.0214
BP	GO:0007229	integrin-mediated signaling pathway	8.0000	1.6667	0.0118
BP	GO:0008104	protein localization	7.0000	1.4583	0.0040
BP	GO:0014066	regulation of phosphatidylinositol 3-kinase signaling	7.0000	1.4583	0.0131
BP	GO:0046854	phosphatidylinositol phosphorylation	7.0000	1.4583	0.0299
BP	GO:0048015	phosphatidylinositol-mediated signaling	7.0000	1.4583	0.0491
BP	GO:0030199	collagen fibril organization	6.0000	1.2500	0.0027
BP	GO:0060326	cell chemotaxis	6.0000	1.2500	0.0228
BP	GO:0007200	phospholipase C-activating G-protein coupled receptor signaling pathway	6.0000	1.2500	0.0241
BP	GO:0001938	positive regulation of endothelial cell proliferation	6.0000	1.2500	0.0286
BP	GO:0060021	palate development	6.0000	1.2500	0.0409
BP	GO:0030307	positive regulation of cell growth	6.0000	1.2500	0.0584
BP	GO:0009636	response to toxic substance	6.0000	1.2500	0.0608
BP	GO:0007565	female pregnancy	6.0000	1.2500	0.0712
BP	GO:0009887	organ morphogenesis	6.0000	1.2500	0.0795
BP	GO:0043525	positive regulation of neuron apoptotic process	5.0000	1.0417	0.0218
BP	GO:0032147	activation of protein kinase activity	5.0000	1.0417	0.0253
BP	GO:0050829	defense response to Gram-negative bacterium	5.0000	1.0417	0.0478
BP	GO:0042475	odontogenesis of dentin-containing tooth	5.0000	1.0417	0.0478
BP	GO:0071346	cellular response to interferon-gamma	5.0000	1.0417	0.0533
BP	GO:0071407	cellular response to organic cyclic compound	5.0000	1.0417	0.0591
BP	GO:0042102	positive regulation of T cell proliferation	5.0000	1.0417	0.0621
BP	GO:0007416	synapse assembly	5.0000	1.0417	0.0652
BP	GO:0007586	digestion	5.0000	1.0417	0.0717
BP	GO:0032868	response to insulin	5.0000	1.0417	0.0856

BP	GO:0050777	negative regulation of immune response	4.0000	0.8333	0.0028
BP	GO:0045672	positive regulation of osteoclast differentiation	4.0000	0.8333	0.0110
BP	GO:0046580	negative regulation of Ras protein signal transduction	4.0000	0.8333	0.0235
BP	GO:0046677	response to antibiotic	4.0000	0.8333	0.0446
BP	GO:0001837	epithelial to mesenchymal transition	4.0000	0.8333	0.0519
BP	GO:0010043	response to zinc ion	4.0000	0.8333	0.0597
BP	GO:0007257	activation of JUN kinase activity	4.0000	0.8333	0.0681
BP	GO:0007631	feeding behavior	4.0000	0.8333	0.0681
BP	GO:0001580	detection of chemical stimulus involved in sensory perception of bitter taste	4.0000	0.8333	0.0770
BP	GO:0043280	positive regulation of cysteine-type endopeptidase activity involved in apoptotic process	4.0000	0.8333	0.0770
BP	GO:0002548	monocyte chemotaxis	4.0000	0.8333	0.0863
BP	GO:0015701	bicarbonate transport	4.0000	0.8333	0.0961
BP	GO:0070172	positive regulation of tooth mineralization	3.0000	0.6250	0.0018
BP	GO:0042510	regulation of tyrosine phosphorylation of Stat1 protein	3.0000	0.6250	0.0036
BP	GO:0045143	homologous chromosome segregation	3.0000	0.6250	0.0087
BP	GO:0002827	positive regulation of T-helper 1 type immune response	3.0000	0.6250	0.0157
BP	GO:0051967	negative regulation of synaptic transmission, glutamatergic	3.0000	0.6250	0.0198
BP	GO:0032725	positive regulation of granulocyte macrophage colony-stimulating factor production	3.0000	0.6250	0.0244
BP	GO:0043666	regulation of phosphoprotein phosphatase activity	3.0000	0.6250	0.0244
BP	GO:0050707	regulation of cytokine secretion	3.0000	0.6250	0.0293
BP	GO:0043206	extracellular fibril organization	3.0000	0.6250	0.0346
BP	GO:0001774	microglial cell activation	3.0000	0.6250	0.0346
BP	GO:0060317	cardiac epithelial to mesenchymal transition	3.0000	0.6250	0.0402
BP	GO:0045780	positive regulation of bone resorption	3.0000	0.6250	0.0402
BP	GO:0035810	positive regulation of urine volume	3.0000	0.6250	0.0402
BP	GO:0003198	epithelial to mesenchymal transition involved in endocardial cushion formation	3.0000	0.6250	0.0402
BP	GO:0043409	negative regulation of MAPK cascade	3.0000	0.6250	0.0462
BP	GO:0003407	neural retina development	3.0000	0.6250	0.0462
BP	GO:0006112	energy reserve metabolic process	3.0000	0.6250	0.0524
BP	GO:0003203	endocardial cushion morphogenesis	3.0000	0.6250	0.0589
BP	GO:0006182	cGMP biosynthetic process	3.0000	0.6250	0.0589
BP	GO:0003222	ventricular trabecula myocardium morphogenesis	3.0000	0.6250	0.0589
BP	GO:0060749	mammary gland alveolus development	3.0000	0.6250	0.0657
BP	GO:0042523	positive regulation of tyrosine phosphorylation of Stat5 protein	3.0000	0.6250	0.0657
BP	GO:0048663	neuron fate commitment	3.0000	0.6250	0.0657
BP	GO:0050860	negative regulation of T cell receptor signaling pathway	3.0000	0.6250	0.0657
BP	GO:0048738	cardiac muscle tissue development	3.0000	0.6250	0.0657
BP	GO:0001708	cell fate specification	3.0000	0.6250	0.0728
BP	GO:0043011	myeloid dendritic cell differentiation	3.0000	0.6250	0.0800
BP	GO:0001659	temperature homeostasis	3.0000	0.6250	0.0800
BP	GO:0042832	defense response to protozoan	3.0000	0.6250	0.0800
BP	GO:0071880	adenylate cyclase-activating adrenergic receptor signaling pathway	3.0000	0.6250	0.0800
BP	GO:0019370	leukotriene biosynthetic process	3.0000	0.6250	0.0875
BP	GO:0016125	sterol metabolic process	3.0000	0.6250	0.0952
BP	GO:0045921	positive regulation of exocytosis	3.0000	0.6250	0.0952
BP	GO:0030879	mammary gland development	3.0000	0.6250	0.0952

BP	GO:0006699	bile acid biosynthetic process	3.0000	0.6250	0.0952
BP	GO:0032817	regulation of natural killer cell proliferation	2.0000	0.4167	0.0492
BP	GO:0035295	tube development	2.0000	0.4167	0.0492
BP	GO:0099558	maintenance of synapse structure	2.0000	0.4167	0.0492
BP	GO:0060715	syncytiotrophoblast cell differentiation involved in labyrinthine layer development	2.0000	0.4167	0.0728
BP	GO:0002158	osteoclast proliferation	2.0000	0.4167	0.0728
BP	GO:2000330	positive regulation of T-helper 17 cell lineage commitment	2.0000	0.4167	0.0959
BP	GO:0038001	paracrine signaling	2.0000	0.4167	0.0959
BP	GO:0046602	regulation of mitotic centrosome separation	2.0000	0.4167	0.0959
BP	GO:0042520	positive regulation of tyrosine phosphorylation of Stat4 protein	2.0000	0.4167	0.0959
BP	GO:0048070	regulation of developmental pigmentation	2.0000	0.4167	0.0959
BP	GO:0051142	positive regulation of NK T cell proliferation	2.0000	0.4167	0.0959
BP	GO:0072675	osteoclast fusion	2.0000	0.4167	0.0959
CC	GO:0005886	plasma membrane	118.0000	24.5833	0.0191
CC	GO:0070062	extracellular exosome	81.0000	16.8750	0.0503
CC	GO:0005576	extracellular region	72.0000	15.0000	0.0000
CC	GO:0005887	integral component of plasma membrane	66.0000	13.7500	0.0000
CC	GO:0005615	extracellular space	63.0000	13.1250	0.0000
CC	GO:0009986	cell surface	28.0000	5.8333	0.0003
CC	GO:0030054	cell junction	17.0000	3.5417	0.0844
CC	GO:0031012	extracellular matrix	16.0000	3.3333	0.0052
CC	GO:0009897	external side of plasma membrane	12.0000	2.5000	0.0136
CC	GO:0005578	proteinaceous extracellular matrix	12.0000	2.5000	0.0578
CC	GO:0045211	postsynaptic membrane	10.0000	2.0833	0.0672
CC	GO:0015629	actin cytoskeleton	10.0000	2.0833	0.0787
CC	GO:0031090	organelle membrane	7.0000	1.4583	0.0178
CC	GO:0005796	Golgi lumen	6.0000	1.2500	0.0798
CC	GO:0031093	platelet alpha granule lumen	5.0000	1.0417	0.0421
CC	GO:0030670	phagocytic vesicle membrane	5.0000	1.0417	0.0522
CC	GO:0008305	integrin complex	4.0000	0.8333	0.0258
CC	GO:0009898	cytoplasmic side of plasma membrane	4.0000	0.8333	0.0783
CC	GO:0031092	platelet alpha granule membrane	3.0000	0.6250	0.0373
CC	GO:0070743	interleukin-23 complex	2.0000	0.4167	0.0472
CC	GO:0005889	hydrogen:potassium-exchanging ATPase complex	2.0000	0.4167	0.0472
CC	GO:0030015	CCR4-NOT core complex	2.0000	0.4167	0.0921
CC	GO:0000942	condensed nuclear chromosome outer kinetochore	2.0000	0.4167	0.0921
MF	GO:0043565	sequence-specific DNA binding	26.0000	5.4167	0.0013
MF	GO:0000978	RNA polymerase II core promoter proximal region sequence-specific DNA binding	17.0000	3.5417	0.0162
MF	GO:0004672	protein kinase activity	17.0000	3.5417	0.0179
MF	GO:0004674	protein serine/threonine kinase activity	17.0000	3.5417	0.0262
MF	GO:0005102	receptor binding	15.0000	3.1250	0.0581
MF	GO:0008083	growth factor activity	14.0000	2.9167	0.0002
MF	GO:0001077	transcriptional activator activity, RNA polymerase II core promoter proximal region sequence-specific binding	13.0000	2.7083	0.0152
MF	GO:0005088	Ras guanyl-nucleotide exchange factor activity	10.0000	2.0833	0.0023
MF	GO:0005125	cytokine activity	10.0000	2.0833	0.0318
MF	GO:0005506	iron ion binding	9.0000	1.8750	0.0372
MF	GO:0004713	protein tyrosine kinase activity	8.0000	1.6667	0.0481
MF	GO:0019900	kinase binding	7.0000	1.4583	0.0108
MF	GO:0005178	integrin binding	7.0000	1.4583	0.0467
MF	GO:0046934	phosphatidylinositol-4,5-bisphosphate	6.0000	1.2500	0.0187

		3-kinase activity			
MF	GO:0005201	extracellular matrix structural constituent	6.0000	1.2500	0.0253
MF	GO:0005179	hormone activity	6.0000	1.2500	0.0846
MF	GO:0046332	SMAD binding	5.0000	1.0417	0.0215
MF	GO:0016705	oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen	5.0000	1.0417	0.0528
MF	GO:0004497	monooxygenase activity	5.0000	1.0417	0.0557
MF	GO:0001618	virus receptor activity	5.0000	1.0417	0.0960
MF	GO:0070330	aromatase activity	4.0000	0.8333	0.0286
MF	GO:0030544	Hsp70 protein binding	4.0000	0.8333	0.0478
MF	GO:0004869	cysteine-type endopeptidase inhibitor activity	4.0000	0.8333	0.0515
MF	GO:0004364	glutathione transferase activity	4.0000	0.8333	0.0554
MF	GO:0015276	ligand-gated ion channel activity	4.0000	0.8333	0.0593
MF	GO:0008234	cysteine-type peptidase activity	4.0000	0.8333	0.0676
MF	GO:0048407	platelet-derived growth factor binding	3.0000	0.6250	0.0291
MF	GO:0015643	toxic substance binding	3.0000	0.6250	0.0344
MF	GO:0005234	extracellular-glutamate-gated ion channel activity	3.0000	0.6250	0.0724
MF	GO:0030159	receptor signaling complex scaffold activity	3.0000	0.6250	0.0871
MF	GO:0035255	ionotropic glutamate receptor binding	3.0000	0.6250	0.0947
MF	GO:0045519	interleukin-23 receptor binding	2.0000	0.4167	0.0490
MF	GO:0038052	RNA polymerase II transcription factor activity, estrogen-activated sequence-specific DNA binding	2.0000	0.4167	0.0490
MF	GO:0034056	estrogen response element binding	2.0000	0.4167	0.0957
MF	GO:0005176	ErbB-2 class receptor binding	2.0000	0.4167	0.0957
		Down-regulated genes			
BP	GO:0000122	negative regulation of transcription from RNA polymerase II promoter	8.0000	9.1954	0.0441
BP	GO:0045893	positive regulation of transcription, DNA-templated	7.0000	8.0460	0.0290
BP	GO:0030335	positive regulation of cell migration	5.0000	5.7471	0.0097
BP	GO:0098609	cell-cell adhesion	5.0000	5.7471	0.0345
BP	GO:0019882	antigen processing and presentation	3.0000	3.4483	0.0257
BP	GO:0006749	glutathione metabolic process	3.0000	3.4483	0.0266
BP	GO:0051291	protein heterooligomerization	3.0000	3.4483	0.0370
BP	GO:0031647	regulation of protein stability	3.0000	3.4483	0.0401
BP	GO:0060333	interferon-gamma-mediated signaling pathway	3.0000	3.4483	0.0411
BP	GO:0002576	platelet degranulation	3.0000	3.4483	0.0793
BP	GO:0006936	muscle contraction	3.0000	3.4483	0.0846
BP	GO:0071356	cellular response to tumor necrosis factor	3.0000	3.4483	0.0887
BP	GO:2001199	negative regulation of dendritic cell differentiation	2.0000	2.2989	0.0224
BP	GO:0002480	antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-independent	2.0000	2.2989	0.0400
BP	GO:0016045	detection of bacterium	2.0000	2.2989	0.0573
BP	GO:0006750	glutathione biosynthetic process	2.0000	2.2989	0.0700
BP	GO:0090026	positive regulation of monocyte chemotaxis	2.0000	2.2989	0.0700
BP	GO:0043984	histone H4-K16 acetylation	2.0000	2.2989	0.0868
BP	GO:0001731	formation of translation preinitiation complex	2.0000	2.2989	0.0991
BP	GO:0071398	cellular response to fatty acid	2.0000	2.2989	0.0991
CC	GO:0005829	cytosol	27.0000	31.0345	0.0018
CC	GO:0070062	extracellular exosome	24.0000	27.5862	0.0021
CC	GO:0016020	membrane	16.0000	18.3908	0.0593
CC	GO:0005783	endoplasmic reticulum	9.0000	10.3448	0.0305
CC	GO:0000139	Golgi membrane	8.0000	9.1954	0.0160

CC	GO:0005730	nucleolus	8.0000	9.1954	0.0863
CC	GO:0005913	cell-cell adherens junction	5.0000	5.7471	0.0558
CC	GO:0012507	ER to Golgi transport vesicle membrane	4.0000	4.5977	0.0016
CC	GO:0071556	integral component of lumenal side of endoplasmic reticulum membrane	3.0000	3.4483	0.0073
CC	GO:0042612	MHC class I protein complex	2.0000	2.2989	0.0478
MF	GO:0003700	transcription factor activity, sequence-specific DNA binding	11.0000	12.6437	0.0107
MF	GO:0042803	protein homodimerization activity	8.0000	9.1954	0.0458
MF	GO:0098641	cadherin binding involved in cell-cell adhesion	5.0000	5.7471	0.0418
MF	GO:0044325	ion channel binding	4.0000	4.5977	0.0144
MF	GO:0002039	p53 binding	3.0000	3.4483	0.0366
MF	GO:0005178	integrin binding	3.0000	3.4483	0.0812
MF	GO:0031726	CCR1 chemokine receptor binding	2.0000	2.2989	0.0311
MF	GO:0070577	lysine-acetylated histone binding	2.0000	2.2989	0.0780

Table 5 — List of pathways associated with DEGs of DMNV and ION (screened using DAVID tool)

Category	Term	Gene Count	Gene %	PValue
	DMNV Up-regulated genes			
KEGG_PATHWAY	hsa04080:Neuroactive ligand-receptor interaction	23.0000	4.4061	0.0001
KEGG_PATHWAY	hsa04151:PI3K-Akt signaling pathway	23.0000	4.4061	0.0024
KEGG_PATHWAY	hsa04917:Prolactin signaling pathway	8.0000	1.5326	0.0090
KEGG_PATHWAY	hsa05140:Leishmaniasis	8.0000	1.5326	0.0090
KEGG_PATHWAY	hsa04015:Rap1 signaling pathway	15.0000	2.8736	0.0101
KEGG_PATHWAY	hsa00830:Retinol metabolism	7.0000	1.3410	0.0191
KEGG_PATHWAY	hsa04110:Cell cycle	10.0000	1.9157	0.0221
KEGG_PATHWAY	hsa05202:Transcriptional misregulation in cancer	12.0000	2.2989	0.0232
KEGG_PATHWAY	hsa04115:p53 signaling pathway	7.0000	1.3410	0.0235
KEGG_PATHWAY	hsa04512:ECM-receptor interaction	8.0000	1.5326	0.0254
KEGG_PATHWAY	hsa04062:Chemokine signaling pathway	12.0000	2.2989	0.0457
KEGG_PATHWAY	hsa05204:Chemical carcinogenesis	7.0000	1.3410	0.0497
KEGG_PATHWAY	hsa04630:Jak-STAT signaling pathway	10.0000	1.9157	0.0523
KEGG_PATHWAY	hsa04620:Toll-like receptor signaling pathway	8.0000	1.5326	0.0627
KEGG_PATHWAY	hsa04914:Progesterone-mediated oocyte maturation	7.0000	1.3410	0.0692
KEGG_PATHWAY	hsa05205:Proteoglycans in cancer	12.0000	2.2989	0.0696
KEGG_PATHWAY	hsa05034:Alcoholism	11.0000	2.1073	0.0707
KEGG_PATHWAY	hsa04014:Ras signaling pathway	13.0000	2.4904	0.0738
KEGG_PATHWAY	hsa00982:Drug metabolism - cytochrome P450	6.0000	1.1494	0.0752
KEGG_PATHWAY	hsa04114:Oocyte meiosis	8.0000	1.5326	0.0763
KEGG_PATHWAY	hsa04610:Complement and coagulation cascades	6.0000	1.1494	0.0790
KEGG_PATHWAY	hsa05030:Cocaine addiction	5.0000	0.9579	0.0792
KEGG_PATHWAY	hsa05032:Morphine addiction	7.0000	1.3410	0.0821
KEGG_PATHWAY	hsa05014:Amyotrophic lateral sclerosis (ALS)	5.0000	0.9579	0.0839
KEGG_PATHWAY	hsa04713:Circadian entrainment	7.0000	1.3410	0.0963
KEGG_PATHWAY	hsa00980:Metabolism of xenobiotics by cytochrome P450	6.0000	1.1494	0.0995
	DMNV Down-regulated genes			
KEGG_PATHWAY	hsa00190:Oxidative phosphorylation	3.0000	12.5000	0.0252
KEGG_PATHWAY	hsa05012:Parkinson's disease	3.0000	12.5000	0.0284
KEGG_PATHWAY	hsa04932:Non-alcoholic fatty liver disease (NAFLD)	3.0000	12.5000	0.0319
KEGG_PATHWAY	hsa05010:Alzheimer's disease	3.0000	12.5000	0.0388
KEGG_PATHWAY	hsa05016:Huntington's disease	3.0000	12.5000	0.0494
	ION Up-regulated genes			
KEGG_PATHWAY	hsa04512:ECM-receptor interaction	9.0000	1.8750	0.0070
KEGG_PATHWAY	hsa04151:PI3K-Akt signaling pathway	21.0000	4.3750	0.0080

KEGG_PATHWAY	hsa04080:Neuroactive ligand-receptor interaction	18.0000	3.7500	0.0083
KEGG_PATHWAY	hsa04060:Cytokine-cytokine receptor interaction	15.0000	3.1250	0.0260
KEGG_PATHWAY	hsa04380:Osteoclast differentiation	10.0000	2.0833	0.0261
KEGG_PATHWAY	hsa05146:Amoebiasis	8.0000	1.6667	0.0559
KEGG_PATHWAY	hsa04390:Hippo signaling pathway	10.0000	2.0833	0.0563
KEGG_PATHWAY	hsa04640:Hematopoietic cell lineage	7.0000	1.4583	0.0625
KEGG_PATHWAY	hsa05323:Rheumatoid arthritis	7.0000	1.4583	0.0653
KEGG_PATHWAY	hsa04510:Focal adhesion	12.0000	2.5000	0.0708
KEGG_PATHWAY	hsa04015:Rap1 signaling pathway	12.0000	2.5000	0.0769
KEGG_PATHWAY	hsa00040:Pentose and glucuronate interconversions	4.0000	0.8333	0.0901
KEGG_PATHWAY	hsa04630:Jak-STAT signaling pathway	9.0000	1.8750	0.0983
	ION Down-regulated genes			
KEGG_PATHWAY	hsa05332:Graft-versus-host disease	3.0000	3.4483	0.0134
KEGG_PATHWAY	hsa05168:Herpes simplex infection	5.0000	5.7471	0.0161
KEGG_PATHWAY	hsa05330:Allograft rejection	3.0000	3.4483	0.0167
KEGG_PATHWAY	hsa04940:Type I diabetes mellitus	3.0000	3.4483	0.0212
KEGG_PATHWAY	hsa00480:Glutathione metabolism	3.0000	3.4483	0.0304
KEGG_PATHWAY	hsa05320:Autoimmune thyroid disease	3.0000	3.4483	0.0315
KEGG_PATHWAY	hsa05416:Viral myocarditis	3.0000	3.4483	0.0373
KEGG_PATHWAY	hsa04910:Insulin signaling pathway	4.0000	4.5977	0.0374
KEGG_PATHWAY	hsa04514:Cell adhesion molecules (CAMs)	4.0000	4.5977	0.0401
KEGG_PATHWAY	hsa04612:Antigen processing and presentation	3.0000	3.4483	0.0626
KEGG_PATHWAY	hsa05203:Viral carcinogenesis	4.0000	4.5977	0.0968
KEGG_PATHWAY	hsa04922:Glucagon signaling pathway	3.0000	3.4483	0.0987

Table 6 — List of pathways related to Parkinson's disease in CTD database common with DAVID results

Pathway	KEGG Identifier	Genes
	DMNV Up-regulated genes	
Retinol metabolism	KEGG:hsa00830	1 gene: ADH1C
Metabolism of xenobiotics by cytochrome P450	KEGG:hsa00980	5 genes: CYP2D6 | CYP2E1 | GSTA4 | GSTM1 | GSTP1
Metabolism of xenobiotics by cytochrome P450	KEGG:hsa00980	1 gene: ADH1C
Drug metabolism - cytochrome P450	KEGG:hsa00982	7 genes: CYP2D6 | CYP2E1 | GSTA4 | GSTM1 | GSTP1 | MAOA | MAOB
Drug metabolism - cytochrome P450	KEGG:hsa00982	1 gene: ADH1C
Ras signaling pathway	KEGG:hsa04014	5 genes: HGF | IGF1R | INS | INSR | NGF
Ras signaling pathway	KEGG:hsa04014	1 gene: PLA2G6
Rap1 signaling pathway	KEGG:hsa04015	6 genes: DRD2 | HGF | IGF1R | INS | INSR | NGF
Neuroactive ligand-receptor interaction	KEGG:hsa04080	2 genes: DRD1 | DRD2
Oocyte meiosis	KEGG:hsa04114	2 genes: IGF1R | INS
PI3K-Akt signaling pathway	KEGG:hsa04151	8 genes: DDIT4 | HGF | IGF1R | IL6 | INS | INSR | NGF | TCL1B
Complement and coagulation cascades	KEGG:hsa04610	1 gene: FGB
Toll-like receptor signaling pathway	KEGG:hsa04620	2 genes: IL6 | TNF
Jak-STAT signaling pathway	KEGG:hsa04630	2 genes: GFAP | IL6
Circadian entrainment	KEGG:hsa04713	1 gene: NOS1
Progesterone-mediated oocyte maturation	KEGG:hsa04914	2 genes: IGF1R | INS
Prolactin signaling pathway	KEGG:hsa04917	2 genes: INS | TH
Amyotrophic lateral sclerosis (ALS)	KEGG:hsa05014	5 genes: GPX1 | MAP3K5 | NOS1 | SOD1 | TNF
Cocaine addiction	KEGG:hsa05030	9 genes: BDNF | DDC | DRD1 | DRD2 | MAOA | MAOB | SLC18A2 | SLC6A3 | TH
Cocaine addiction	KEGG:hsa05030	1 gene: SLC6A3
Morphine addiction	KEGG:hsa05032	1 gene: DRD1
Alcoholism	KEGG:hsa05034	9 genes: BDNF | DDC | DRD1 | DRD2 | MAOA | MAOB |

		SLC18A2 | SLC6A3 | TH
Alcoholism	KEGG:hsa05034	1 gene: SLC6A3
Leishmaniasis	KEGG:hsa05140	3 genes: HLA-DRA | HLA-DRB5 | TNF
Transcriptional misregulation in cancer	KEGG:hsa05202	2 genes: IGF1R | IL6
Chemical carcinogenesis	KEGG:hsa05204	4 genes: CYP2E1 | GSTA4 | GSTM1 | GSTP1
Chemical carcinogenesis	KEGG:hsa05204	1 gene: ADH1C
Proteoglycans in cancer	KEGG:hsa05205	4 genes: HGF | IGF1R | IGF2 | TNF
	DMNV Down-regulated genes	
Non-alcoholic fatty liver disease (NAFLD)	KEGG:hsa04932	6 genes: CYP2E1 | IL6 | INS | INSR | MAP3K5 | TNF
Alzheimer's disease	KEGG:hsa05010	4 genes: MAPT | NOS1 | SNCA | TNF
Alzheimer's disease	KEGG:hsa05010	1 gene: SNCA
Alzheimer's disease	KEGG:hsa05010	1 gene: SNCA
Alzheimer's disease	KEGG:hsa05010	1 gene: MAPT
Alzheimer's disease	KEGG:hsa05010	1 gene: MAPT
Parkinson's disease	KEGG:hsa05012	10 genes: DRD1 | DRD2 | LRRK2 | PARK7 | PINK1 | PRKN | SLC18A2 | SLC6A3 | SNCA | TH
Parkinson's disease	KEGG:hsa05012	1 gene: HTRA2
Parkinson's disease	KEGG:hsa05012	1 gene: SNCA
Parkinson's disease	KEGG:hsa05012	1 gene: SNCA
Parkinson's disease	KEGG:hsa05012	1 gene: UCHL1
Parkinson's disease	KEGG:hsa05012	1 gene: PINK1
Parkinson's disease	KEGG:hsa05012	1 gene: PARK7
Parkinson's disease	KEGG:hsa05012	1 gene: LRRK2
Parkinson's disease	KEGG:hsa05012	1 gene: SNCAIP
Parkinson's disease	KEGG:hsa05012	1 gene: SLC6A3
Huntington's disease	KEGG:hsa05016	5 genes: BDNF | GPX1 | PPARGC1A | SOD1 | SOD2
Huntington's disease	KEGG:hsa05016	1 gene: TBP
	ION Up-regulated genes	
Glutathione metabolism	KEGG:hsa00480	4 genes: GPX1 | GSTA4 | GSTM1 | GSTP1
Cell adhesion molecules (CAMs)	KEGG:hsa04514	5 genes: CNTNAP2 | HLA-DRA | HLA-DRB5 | MAG | NECTIN2
Antigen processing and presentation	KEGG:hsa04612	4 genes: HLA-DRA | HLA-DRB5 | HSPA1A | TNF
Insulin signaling pathway	KEGG:hsa04910	4 genes: FBP1 | INS | INSR | PPARGC1A
Glucagon signaling pathway	KEGG:hsa04922	2 genes: FBP1 | PPARGC1A
Type I diabetes mellitus	KEGG:hsa04940	4 genes: HLA-DRA | HLA-DRB5 | INS | TNF
Herpes simplex infection	KEGG:hsa05168	5 genes: HLA-DRA | HLA-DRB5 | IL6 | NECTIN2 | TNF
Herpes simplex infection	KEGG:hsa05168	1 gene: TBP
Viral carcinogenesis	KEGG:hsa05203	1 gene: TBP
Autoimmune thyroid disease	KEGG:hsa05320	2 genes: HLA-DRA | HLA-DRB5
Allograft rejection	KEGG:hsa05330	3 genes: HLA-DRA | HLA-DRB5 | TNF
Graft-versus-host disease	KEGG:hsa05332	4 genes: HLA-DRA | HLA-DRB5 | IL6 | TNF
Viral myocarditis	KEGG:hsa05416	2 genes: HLA-DRA | HLA-DRB5
Viral myocarditis	KEGG:hsa05416	1 gene: EIF4G1
	Ion Down-regulated genes	
Rap1 signaling pathway	KEGG:hsa04015	6 genes: DRD2 | HGF | IGF1R | INS | INSR | NGF
Cytokine-cytokine receptor interaction	KEGG:hsa04060	3 genes: HGF | IL6 | TNF
Neuroactive ligand-receptor interaction	KEGG:hsa04080	2 genes: DRD1 | DRD2
PI3K-Akt signaling pathway	KEGG:hsa04151	8 genes: DDIT4 | HGF | IGF1R | IL6 | INS | INSR | NGF | TCL1B
Osteoclast differentiation	KEGG:hsa04380	1 gene: TNF
Focal adhesion	KEGG:hsa04510	2 genes: HGF | IGF1R
Jak-STAT signaling pathway	KEGG:hsa04630	2 genes: GFAP | IL6
Hematopoietic cell lineage	KEGG:hsa04640	5 genes: FCER2 | HLA-DRA | HLA-DRB5 | IL6 | TNF
Amoebiasis	KEGG:hsa05146	2 genes: IL6 | TNF
Rheumatoid arthritis	KEGG:hsa05323	4 genes: HLA-DRA | HLA-DRB5 | IL6 | TNF

Table 7 — List of network clusters obtained from PPI networks of DMNV and ION

ION network modules

Cluster	Score (Density*Nodes)	Nodes	Edges	Node IDs
1	7	7	21	PTGER3, CXCL5, DRD2, CCL5, CCL16, GNGT1, HTR1B
2	4.4	6	11	ITGB1, CD22, ITGB8, CAV2, CTLA4, ITGB3
3	4	4	6	MC5R, HTR7, PTH2R, ADRB3
4	4	4	6	LPAR4, ADRA1D, TACR1, P2RY10
5	3	3	3	COL5A1, COL4A6, COL3A1
6	3	3	3	GCK, SREBF1, G6PC

DMNV network modules

Cluster	Score (Density*Nodes)	Nodes	Edges	Node IDs
1	10.8	16	81	GNGT1, HRH4, HTR2A, OPRM1, GNRHR, TACR1, CXCL9, CXCL11, F2, KNG1, P2RY4, EDNRA, CNRLTB4R, ADCY2, FPR2
2	5	19	45	CCND2, CD44, CALCR, ITGB1, HGF, CGA, ITGB4, SDC1, COL6A3, GNAO1, MC4R, COL4A6, PRLR, MAPK14, PTGDR, CSH1, ITGA4, ESR2, ESR1
3	5	5	10	CYP2C9, UGT1A8, CYP3A7, CYP3A5, UGT1A10
4	3.778	10	17	TLR7, CAT, FLT3, MDM2, LEP, SYK, CDK1, CREB1, BCL2L1, MYB
5	3	3	3	BUB1, ANAPC5, FBXO5
6	3	3	3	HIST1H2AI, HIST1H4G, HIST1H2AK

Table 8 — List of transcription factors predicted for DMNV and ION

Transcription factors for DMNV

Rank	Motif id	AUC	NES	ClusterCode	Transcription factor
1	hdpi-DDX4	0.0862822	5.07667	M1	DDX4
2	hdpi-PHLDA2	0.0751232	4.17617	M2	PHLDA2
3	flyfactorsurvey-lola-PQ_SANGER_5_FBgn0005630	0.0741464	4.09734	M3	
4	encode-UW.Motif.0401	0.0736432	4.05674	M4	
5	transfac_pro-M01081	0.0727405	3.98388	M5	ZNF628
6	hdpi-MAGED4	0.0723705	3.95403	M2	MAGED4
7	hdpi-PSMA6	0.0722521	3.94447	M2	PSMA6
8	flyfactorsurvey-dl_NBT_FBgn0000462	0.0714973	3.88356	M6	NFKB1,RELA,REL, YY1,RELB
9	encode-UW.Motif.0489	0.0704465	3.79877	M4	
10	yetfasco-1657	0.0696029	3.73069	M7	
11	hdpi-SPATS2	0.0694845	3.72114	M8	SPATS2
12	tfdimers-MD00392	0.0689665	3.67934	M9	E2F1,NKX2-1
13	homer-M00648	0.0689221	3.67575	M10	ZFP37
14	yetfasco-1110	0.067975	3.59932	M9	PRKAA2,PRKAA1, MARK2,MARK3, MARK1,MARK4
15	yetfasco-1031	0.0673238	3.54677	M9	
16	yetfasco-667	0.0667318	3.499	M11	
17	hdpi-TSN	0.0666282	3.49064	M2	TSN
18	yetfasco-1233	0.0663618	3.46914	M5	
19	flyfactorsurvey-lola-PK_SOLEXA_FBgn0005630	0.0661842	3.45481	M12	
20	transfac_pro-M00326	0.0658734	3.42973	M13	PAX1
21	tiffin-TIFDMEM0000030	0.065607	3.40823	M14	

22	yetfasco-1908	0.0655922	3.40704	M11	
23	tfdimers-MD00032	0.0654738	3.39748	M15	GFI1
24	jaspar-CN0105.1	0.065459	3.39629	M16	
25	hdpi-KLF3	0.0652962	3.38315	M17	KLF3
26	tiffin-TIFDMEM0000077	0.0649262	3.35329	M9	
27	hdpi-MSI2	0.0645118	3.31985	M18	MSI2
28	hdpi-BARX1	0.0644822	3.31746	M19	BARX1
29	yetfasco-917	0.0643786	3.3091	M18	
30	jaspar-MA0282.1	0.0643194	3.30433	M20	
31	yetfasco-524	0.0642898	3.30194	M20	
32	transfac_public-M00197	0.0640086	3.27924	M21	
33	hdpi-NFATC4	0.0639198	3.27208	M2	NFATC4,NFATC3
34	homer-M00071	0.0636683	3.25178	M7	GATA3,GATA1, GATA6,GATA5, GATA4,GATA2
35	yetfasco-666	0.0636683	3.25178	M14	MEF2A,MEF2D, MEF2C,MEF2BNB-MEF2B,MEF2B
36	transfac_pro-M01544	0.0636535	3.25058	M20	
37	yetfasco-841	0.0636535	3.25058	M20	
38	tfdimers-MD00349	0.0636386	3.24939	M22	GABPA,YY2,CDK2AP1
39	yetfasco-925	0.0636239	3.24819	M23	SRF
40	jaspar-PF0134.1	0.0634759	3.23625	M24	
41	transfac_public-M00150	0.0634759	3.23625	M25	T,TBX19,TBR1,TBX15,EOMES,TBX1,TBX4
42	homer-M00192	0.0633427	3.2255	M8	
43	transfac_pro-M01405	0.0629875	3.19684	M23	IRX2,IRX5,IRX6,IRX4, TP53,HNF1B,HNF1A,IRX3
44	flyfactorsurvey-shn-F1-2_SANGER_5_FBgn0003396	0.0626915	3.17295	M6	HIVEP1,HIVEP3,HIVEP2,ZNF831,NFKB1,MZF1,IKZF1
45	jaspar-MA0033.1	0.0625287	3.15981	M14	FOXL1
46	tfdimers-MD00540	0.0624251	3.15145	M17	TCF3,HAND1,NOBOX,HAND2,YY1,PAX7,MYCN
47	transfac_pro-M00406	0.0622919	3.14071	M26	MEF2A
48	yetfasco-1634	0.0621143	3.12637	M27	GATA5,GATA1,GATA2,GATA3,GATA4,GATA6
49	jaspar-CN0185.1	0.0620847	3.12399	M1	
50	hdpi-ZMAT4	0.0619811	3.11562	M1	ZMAT4
51	flyfactorsurvey-CG10904_SANGER_5_FBgn0034945	0.0618923	3.10846	M9	
52	hdpi-U2AF1	0.0618479	3.10488	M22	U2AF1
53	transfac_pro-M01718	0.0617739	3.0989	M2	NFATC1,NFATC3,NFATC4,NFATC2
54	transfac_pro-M01788	0.0614039	3.06905	M2	SRF,MEF2A,MEF2C,MEF2D,MEF2B,MEF2BNB-MEF2B
55	hdpi-NFATC3	0.0611375	3.04755	M2	NFATC3,NFATC4
56	transfac_pro-M01759	0.0609747	3.03441	M11	RUNX3,RUNX2
57	yetfasco-1448	0.0609451	3.03202	M14	MEF2A,MEF2BNB-MEF2B,MEF2B, MEF2C,MEF2D
58	wolfe-D19B-F1-2-CG4360_F3_SOLEXA_2.5	0.0608711	3.02605	M23	

59	jaspar-MA0091.1	0.0608563	3.02486	M28	TAL1,TCF3,TCF4,TCF12,ATOH1,OLIG2,MYB,YY1,TBX5,OLIG1,ZNF146,ZNF260
60	taipale-RRGGTCAAAAGGTCA-NR2F6-DBD	0.0608119	3.02127	M29	NR2F6,NR2F1,RARA,RARG,RARB,HNF4A
61	yetfasco-483	0.0607527	3.0165	M20	
62	elemento-TATCGATA	0.0606935	3.01172	M30	
Rank	Track id	AUC	NES	Cluster Code	Transcription factor
1	wgEncodeHaibTfbsGm12878Foxm1sc502V0422111PkRep1.broadPeak.gz	0.066865	4.31262	T1	FOXM1
2	wgEncodeHaibTfbsGm12878Nficsc81335V0422111PkRep1.broadPeak.gz	0.0659622	4.23606	T2	NFIC
3	wgEncodeHaibTfbsHepg2Nr2f2sc271940V0422111PkRep2.broadPeak.gz	0.0635499	4.0315	T3	NR2F2
4	wgEncodeHaibTfbsGm12878Foxm1sc502V0422111PkRep2.broadPeak.gz	0.0632687	4.00766	T1	FOXM1
5	wgEncodeHaibTfbsHepg2P300V0416101PkRep1.broadPeak.gz	0.0613891	3.84828	T4	EP300
6	wgEncodeHaibTfbsGm12878Cebpbsc150V0422111PkRep1.broadPeak.gz	0.0590951	3.65375	T5	CEBPB
7	wgEncodeHaibTfbsHepg2Mybl2sc81192V0422111PkRep2.broadPeak.gz	0.0581184	3.57093	T6	MYBL2
8	wgEncodeHaibTfbsHepg2Mybl2sc81192V0422111PkRep1.broadPeak.gz	0.0558096	3.37515	T6	MYBL2
9	wgEncodeHaibTfbsGm12878Tcf3Pcr1xPkRep2.broadPeak.gz	0.0552472	3.32746	T7	TCF3
10	wgEncodeHaibTfbsHepg2P300V0416101PkRep2.broadPeak.gz	0.0532049	3.15427	T4	EP300
11	wgEncodeSydhTfbsK562P300sc584sc48343IggrabPk.narrowPeak.gz	0.0528793	3.12667	T4	EP300
12	wgEncodeHaibTfbsA549GrPcr1xDex5nmPkRep1.broadPeak.gz	0.0524205	3.08776	T8	NR3C1
13	wgEncodeHaibTfbsA549Foxa1V0416102Dex100nmPkRep1.broadPeak.gz	0.0523021	3.07772	T9	FOXA1
14	wgEncodeHaibTfbsHepg2Nr2f2sc271940V0422111PkRep1.broadPeak.gz	0.0522133	3.07019	T3	NR2F2
15	wgEncodeHaibTfbsHepg2Sin3ak20Pcr1xPkRep1.broadPeak.gz	0.0519173	3.04509	T10	SIN3A

Transcription factors for ION

Rank	Motif id	AUC	NES	Cluster Code	Transcription factor
1	homer-M00694	0.0877071	4.53386	M1	NKX2-5,NKX2-6,NKX2-3
2	homer-M00249	0.0874545	4.51652	M2	
3	encode-UW.Motif.0489	0.0866966	4.4645	M3	
4	hdpi-DDX20	0.0862755	4.4356	M4	DDX20
5	wolfe-gl_SOLEXA_F3-5	0.0858755	4.40814	M4	
6	encode-UW.Motif.0099	0.0847597	4.33156	M3	
7	yetfasco-1077	0.0840649	4.28387	M5	
8	transfac_pro-M02365	0.0828228	4.19861	M1	NKX2-6
9	transfac_pro-M01894	0.0817701	4.12636	M6	YY1,ZNF333,YY2,REL
10	homer-M01498	0.0816859	4.12058	M7	
11	homer-M00585	0.0793069	3.9573	M1	NKX2-2,NKX2-8,NKX2-6
12	jaspar-CN0224.1	0.0781911	3.88071	M5	
13	transfac_pro-M02809	0.0772437	3.81569	M8	SP100,SP140L
14	hdpi-ZNF193	0.07697	3.7969	M9	ZSCAN9
15	jaspar-CN0078.1	0.0768016	3.78534	M10	
16	yetfasco-1173	0.0767806	3.7839	M11	

17	homer-M00191	0.0762121	3.74488	M12	STAT6
18	yetfasco-193	0.0753068	3.68275	M8	
19	hdpi-ZNF385	0.0749911	3.66107	M10	ZNF385A
20	tfdimers-MD00557	0.0738331	3.58159	M13	MZF1,CBFB,RUNX2
21	yetfasco-1084	0.0736858	3.57148	M14	
22	transfac_public-M00118	0.07337	3.5498	M15	MYC,MAX,USF1,MXI1,MXD3, ID1,HES6,ARNTL,MITF,HEY2, MNT,MXD4,CLOCK,OLIG2, HEY1,ARNTL2,OLIG1,MLXIPL, HEYL,NPAS2,TFE3,MYCN,BHL HE40,ARNT,ARNT2,USF2
23	homer-M00196	0.0733279	3.54691	M9	TBX20
24	transfac_pro-M01717	0.0730331	3.52668	M8	
25	tiffin-TIFDMEM0000072	0.0728857	3.51657	M11	
26	yetfasco-1908	0.0726752	3.50212	M16	
27	yetfasco-1102	0.0724226	3.48478	M11	CNOT4
28	homer-M00018	0.0723384	3.479	M9	
29	transfac_pro-M01204	0.0721489	3.46599	M2	SPIB,SPIC,SPI1,EP300,E2F6, ETV7,GABPB1,FLI1,ELK4,ELF2, ELK1,ETV6,ELF4,TCF4,ETS1, YY1,TBP,ELF5,NFATC3,PURA,SI RT6,BPTF,ELK3,ETV4,ELF1,ETS 2,ERG,GABPA,HOXD10
30	hdpi-CDK2AP1	0.0715805	3.42698	M6	CDK2AP1,FOXO1,YY2,GABPA
31	transfac_pro-M00327	0.0715805	3.42698	M17	PAX3,PAX7
32	transfac_pro-M01871	0.0708436	3.3764	M8	EBF1,STAT1,STAT6,PPARG,MZF 1,EBF2,EBF3,ZBTB7A,CHURC1
33	tfdimers-MD00018	0.0708015	3.37351	M2	ETV7,ELK4,ELF4,FLI1,ELF2, ETV6,SPIB,TBP,GABPB1,ELK1, SPI1,SPIC,DBP,STAT1,ETS1, HOXD10,ETV4,GABPA,ETS2, ELF1,ELK3,ERG,TCF4,ELF5, NFATC3,PURA,E2F6,EP300, TCF3,E2F1,SIRT6,STAT6
34	yetfasco-1114	0.0706331	3.36195	M11	
35	yetfasco-48.3	0.0704015	3.34606	M18	
36	yetfasco-2087	0.070212	3.33305	M19	
37	elemento-AGCTGCG	0.0700646	3.32294	M14	
38	hdpi-LSM6	0.0697909	3.30415	M9	LSM6
39	stark-CACTTRA	0.0693488	3.27381	M1	NKX2-6,NKX2-5,NKX2-3
40	encode-UW.Motif.0488	0.0692225	3.26514	M16	
41	wolfe-Blimp-1-F1-CG4360F2-3_SOLEXA_2.5	0.0691804	3.26225	M20	
42	transfac_pro-M01081	0.0691594	3.2608	M21	ZNF628
43	yetfasco-1973	0.0690962	3.25647	M22	SIRT1,SIRT5,SIRT4
44	elemento-ACTTGAC	0.0687383	3.2319	M1	
45	flyfactorsurvey-CG12029_SOLEXA_5_FBgn0035454	0.0687172	3.23046	M13	KLF4,KLF1,SP1,SP4,SP3,SP8,KLF 14,KLF17,KLF6,KLF7,KLF3,KLF 12,KLF15,SP9,SP6,SP7,SP5
46	tfdimers-MD00182	0.0686751	3.22757	M2	ETS1,TFAP4
47	transfac_pro-M01145	0.0686541	3.22612	M15	MYC,MAX,MNT,OLIG1,MITF,M XI1,OLIG2,TFE3,MLXIPL,HEY2, CLOCK,MXD3,HES6,MXD4,ID1, NPAS2,HEYL,ARNTL2,HEY1,AR NTL,MYCN,BHLHE40,ARNT,AR NT2,USF1
48	yetfasco-1122	0.068612	3.22323	M19	
49	selexconsensus-tin	0.0685278	3.21745	M1	NKX2-6,NKX2-5,NKX2-3

50	yetfasco-563	0.0683593	3.20589	M19	
51	tfdimers-MD00128	0.0677488	3.16399	M11	PDX1,CDX2,HOXC6,HNF1B,HNF1A,RAX,JUN,FOS,POU1F1,TLX2,POU3F1,POU3F2,POU3F4,EVX1,EVX2,VENTX,HOXB8,HOXA5
52	tfdimers-MD00297	0.0676856	3.15965	M20	ZEB1,POU5F1,FOXA3,FOXP3
53	hdpi-POLE3	0.0672856	3.1322	M23	POLE3
54	taipale-NNRRAAAGGAAACCGAAACTN-IRF3-full	0.0671804	3.12497	M20	IRF3,IRF9,IRF4,IRF8,IRF5,ZEB1,IRF7,IRF6,IRF2,IRF1
55	tfdimers-MD00042	0.0671383	3.12208	M11	POU2F1,CRX,HNF1B,IRX4,HNF1A,PPARG,PDX1,POU3F2,POU4F1,POU5F1B,POU5F1,POU2F3,POU2AF1,POU3F1,POU2F2,POU3F3,FOXO1,PAX4,RAX,RHOXF1
56	yetfasco-1490	0.0668435	3.10185	M17	JAZF1,FOXN4,FOXN3,FOXN2,FOXH1,FOXN1
57	yetfasco-1028	0.0665067	3.07873	M12	
58	yetfasco-1097	0.0662119	3.0585	M24	
59	tfdimers-MD00145	0.0660435	3.04694	M2	ELK4,ELF2,GABPB1,TCF4,FLI1,ELK1,ELF4,ETV6,SPIB,ETV7,SPI1,ERF,ELF1,ERG,ETS2,ETS1,GABPA,ETV4,ELK3,TCF3,SRY,STAT1,SPIC,TBP,SIRT6,EP300,E2F6,PURA,IRF4,STAT6,CEBPB,HOXD10
60	hdpi-EVX1	0.065854	3.03393	M10	EVX1
61	tfdimers-MD00398	0.065854	3.03393	M2	ETS1,PURA,SPI1,NR3C1,STAT1,E2F6,EP300,SPIB,FLI1,ELK4,ERG,ETV7,ELF2,ERF,ETS2,ELF1,ELK1,IRF4,ETV4,GATA4,GATA1,GATA2,GATA3,GATA6,GATA5,ELF4,TCF4,STAT6,GABPB1,ETV6,TBP,E2F1
62	yetfasco-1101	0.0658119	3.03104	M18	JAZF1
63	jaspar-PF0031.1	0.0657488	3.02671	M13	KLF4,KLF14,SP4,SP1,SP8,SP3,KLF16,KLF13,KLF1,KLF6,KLF7,KLF3,KLF12,KLF5,KLF15,KLF17,SP9,SP6,SP7,SP5
64	yetfasco-1287	0.0656645	3.02093	M25	NFE2,BACH1
65	yetfasco-135	0.0655803	3.01515	M7	
66	factorbook-SOX2-OCT4	0.0654119	3.00359	M9	NANOG,POU5F1,SOX2,NFATC1,TCF3,PAX4,YY1,SOX9,SRY,POU2F2,AP3B1,PDX1,SOX3,E2F1,PBX1,POU2F1,POU3F1,HOXD1,CDX2,QSOX1,SMAD1,MAF

Rank	Track id	AUC	NES	Cluster Code	Transcription factor
1	wgEncodeSydhTfbsGm12878Ikzf1iknuclaStdPk.narrowPeak.gz	0.069012	4.17262	T1	IKZF1
2	wgEncodeSydhTfbsHepg2ErraForsklnStdPk.narrowPeak.gz	0.0689278	4.16624	T2	ESRRA
3	wgEncodeSydhTfbsGm12891NfkbTnfaIggrabPk.narrowPeak.gz	0.0610539	3.56948	T3	NFKB1
4	wgEncodeHaibTfbsHepg2Nr2f2sc271940V0422111PkRep1.broadPeak.gz	0.0587802	3.39715	T4	NR2F2
5	wgEncodeHaibTfbsA549Foxa1V0416102Dex100nmPkRep1.broadPeak.gz	0.0573065	3.28546	T5	FOXA1
6	wgEncodeHaibTfbsA549GrPcr1xDex5nmPkRep1.broadPeak.gz	0.0546327	3.08282	T6	NR3C1

List of miRNAs predicted for DMNV and ION

Gene set	Size	Overlap	Expect	Enrichment ratio	p-value	Overlap ID	Genes
				DMNV			
TAGCTTT,MIR-9	190	5	1.4313	3.4933	0.0134	894;6772;3688; 84612;8013	STAT1;ITGB1; CCND2;NR4A3; PARD6B
ACCATTT, MIR-522	132	4	0.9944	4.0226	0.0168	8013;5781; 894;2775	PTPN11;GNAO1; CCND2;NR4A3
TGCACTG,MIR-148A,MIR-152, MIR-148B	230	5	1.7327	2.8857	0.0281	108;8851;5562; 2099;815	ESR1;ADCY2; CAMK2A; PRKAA1;CDK5R1
ACAGGGT,MIR-10A,MIR-10B	97	3	0.7307	4.1055	0.0360	8013;6382; 2321	SDC1;FLT1; NR4A3
ACTGCCT,MIR-34B	178	4	1.3409	2.9830	0.0439	108;4602;799; 1385	CREB1;ADCY2; CALCR;MYB
AAGCACT,MIR-520F	180	4	1.3560	2.9499	0.0454	894;8013;2099; 2321	ESR1;FLT1; CCND2;NR4A3
AGCACTT, MIR-93,MIR 302A,MIR-302B,MIR-302C,MIR-302D,MIR-372, MIR-373,MIR-520E,MIR-520A,MIR-526B,MIR-520B,MIR-520C,MIR-520D	264	5	1.9888	2.5141	0.0467	894;8013;2099; 6382;2321	ESR1;SDC1; FLT1;CCND2; NR4A3
CACTGTG,MIR-128A,MIR-128B	266	5	2.0039	2.4952	0.0480	108;5139;1432; 1268;5587	ADCY2;MAPK14; CNR1;PRKD1; PDE3A
TGCTTTG,MIR-330	267	5	2.0114	2.4858	0.0487	2904;1293; 8013;2099;2775	ESR1;GRIN2B; GNAO1;COL6A3; NR4A3
AGGGCAG,MIR-18A	112	3	0.8437	3.5556	0.0515	598;2099;1385	ESR1;CREB1; BCL2L1
				ION			
CTACCTC, LET-7A,LET-7B,LET-7C,LET-7D,LET-7E,LET-7F,MIR-98,LET-7G,LET-7I	286	6	1.4029	4.2767	0.0022	155;7046;1281; 5155;8651;3690	ITGB3;PDGFB; COL3A1;SOCS1; ADRB3;TGFBR1
TGGTGCT, MIR-29A, MIR-29B, MIR-29C	407	7	1.9965	3.5061	0.0028	3952;3363;1281; 5155;8651;858;3688	LEP;ITGB1; PDGFB;COL3A1;SOCS1;HTR7;CAV2
TGAATGT,MIR-181A,MIR 181B,MIR-181C,MIR-181D	387	5	1.8984	2.6338	0.0376	10018;2898;8600;1385;3696	CREB1;ITGB8;TNFSF11;BCL2L11;GRIK2
CGCAAAA, MIR-450	8	1	0.0392	25.4821	0.0386	1385	CREB1
TCTATGA,MIR-376A,MIR-376B	68	2	0.3336	5.9958	0.0433	2898;10018	BCL2L11;GRIK2
GGGACCA,MIR-133A,MIR-133B	167	3	0.8192	3.6621	0.0472	7046;1437;6374	CSF2;CXCL5; TGFBR1
TCCGTCC,MIR-184	12	1	0.0589	16.9881	0.0574	90993	CREB3L1
ACACTAC,MIR-142-3P	105	2	0.5151	3.8830	0.0930	7046;5618	PRLR;TGFBR1
AGCATTA, MIR-155	110	2	0.5396	3.7065	0.1006	8651;1493	CTLA4;SOCS1
AGGGCAG, MIR-18A	112	2	0.5494	3.6403	0.1037	3690;1385	ITGB3;CREB1