

Supplemental Materials

Supplemental Methods

Exclusion Criteria

Patients were excluded if they had AA for less than 3 months; active, unstable or regrowing AA; were on concomitant treatment (within 1 month prior to enrollment) which could affect hair regrowth; or had evidence of underlying infections, malignancies, immunocompromise or unstable medical conditions. Also excluded were patients with concomitant skin disease on the scalp; or patients taking experimental medications within the last month or three half-lives of the medication. Patients reporting recent or DMARDs (disease modifying anti rheumatologic drugs) use were excluded.

Adverse effects

Adverse events were categorized as any new untoward medical occurrence (sign, symptom or abnormal laboratory finding) or worsening of a pre-existing medical condition in a patient who took at least one dose of study medication, whether or not the event was considered to have a causal relationship with study treatment. Adverse events were assessed at every monthly visit. Patients were also encouraged to contact the study center in the interim between visits if they developed new signs or symptoms of concern. Several patients developed modest declines of white blood cell counts initially but

levels remained within normal limits and therefore no dose adjustment was required. One patient developed lowered hemoglobin levels, which required dose modification. No significant decline in platelet counts were observed. One patient developed 2 episodes of reported furuncles/abscesses. Both episodes were evaluated by the patient's primary doctor and had resolved before the patient was evaluated by the research team. The same patient also reported a possible biopsy site infection for which she sought medical attention and was reportedly treated with oral antibiotics while out of the country. Several patients developed mild URIs deemed to be seasonal and unrelated to medication. One patient had a mild episode of pneumonia, confirmed via chest x-ray, which was treated with oral antibiotics. This patient had a distant history of an episode of pneumonia years prior to study participation. There were no observed clinically significant occurrences of lowered platelets. No hepatic abnormalities were observed. One patient had elevated lipids at baseline and during treatment. He was monitored by his primary physician while on study drug, and had no clinically apparent adverse effects related to lipid levels. Two patients developed lesions consistent with acne or scalp folliculitis. Both episodes resolved within weeks. Three patients had GI symptoms including diarrhea. One patient developed conjunctival hemorrhage following a pre-planned ophthalmic procedure (a commonly seen side effect of the procedure) and transient hemorrhoid bleeding. There was no concomitant change in circulating levels of platelets. Several patients had minor abnormalities on urine analysis/microscopy. One patient was treated for urinary tract infection.

Microarray Preprocessing and Quality Control

Microarray quality control and preprocessing were performed using BioConductor in R. Quality control was performed using the R standalone version of affyAnalysisQC from <http://arrayanalysis.org>.

Samples which included 31 from this study plus three additional samples from healthy controls from GEO accession number GSE53573 were normalized together using GCRMA. Affymetrix probe sets were called present or absent by affyAnalysisQC using a MAS5 algorithm implemented in R. Probeset IDs (PSIDs) that were on the X or Y chromosome, that were Affymetrix control probe sets, or that did not have Gene Symbol annotation were removed from all arrays for further downstream analysis. Data were analyzed using $\log_2(\text{Intensity})$ for expression levels.

Batch effect correction was required in order to include the three healthy control samples from our earlier dataset GSE58573 for the calculation of ALADIN scores and for increased power in our differential expression analysis. A modified version of ComBat (M-ComBat)² was used in order to integrate the normal samples from the earlier GEO dataset. Expression levels of the samples from the current data set were held fixed while M-ComBat was used to integrate the three healthy control samples from GSE58573 with the current healthy control samples. M-ComBat is an implementation of the function ComBat available in the sva package that allows one of the batches to be used as a reference batch.

Calculation of ALADIN score

ALADIN scores were calculated for all 34 samples using the batch corrected expression data. The CTL, IFN, and KRT ALADIN scores were determined following procedures outlined previously³. Briefly, z-scores are calculated for each PSID relative to the mean and standard deviation of normal controls. Scores for each gene are obtained by averaging z-scores of PSIDs mapping to that gene. Signature scores are then calculated averages of the scores for genes belonging to the corresponding signature.

Identification of Gene Expression Signatures

In order to perform further analysis on the ruxolitinib samples at baseline (n=12) with the Normal controls (n=6), PSIDs were further filtered to retain only features that were called present on at least one of the 18 samples, there were 36147 PSIDs remaining for further downstream analysis.

Filtering of paired samples at times t=0 and t=12 from patients who responded to ruxolitinib treatment

After QC, there were 8 patients with microarray data at both t=0 and at t=12 who responded to ruxolitinib treatment. PSIDs were further filtered to retain only features that were called present on at least one of the 16 samples, there were 35563 PSIDs remaining for further differential expression analysis.

Differential expression analysis

Differential expression analysis was performed on the samples from t=0 and Normal controls and on the paired data from t=0 and t=12 from the responders using linear models as implemented in the limma package in Bioconductor⁴. A threshold of 2.0 fold change and unadjusted p-value of 0.05 was used. Comparisons were made between responders at baseline and normal controls, between responders and non-responders at baseline, between non-responders at baseline and normal controls, between responders at baseline and at 12 weeks of treatment, and finally between responders at 12 weeks of treatment and normal controls.

Principal component analysis of six healthy controls and ruxolitinib treated patients at t=0 and t=12

Principal component analysis was performed on the samples from the six healthy controls and ruxolitinib treated patients at baseline and 12 weeks using the responder signature made up of PSIDs that were differentially expressed between responders at baseline and normal controls.

Statistical Analysis

All variables were examined for distributional assumptions, checked for accuracy and for out of range values. Based on our *a priori* definition we classified patients as a responder if they experienced 50% or greater hair re-

growth from baseline, based on the SALT score at end of treatment. We examined the overall distribution of demographic factors, and looked at possible differences between responders and non-responders, tested for significance using Fisher's Exact Test (two sided) for categorical variables, and Mann-Whitney U test for continuous variables. We then examined the change between baseline, end of treatment (EOT), and end of study (EOS) scores on relevant variables overall, and for responders and non-responders employing either a Mann-Whitney U test or Wilcoxon Signed Rank test. To estimate the extent of regrowth across time, we considered both a Generalized Estimating Equation and a Mixed Model approach to model the repeated measures data, and opted for the latter given the strong normality assumption of GEE's and our relatively small sample size. For these mixed models, we first modeled regrowth from baseline to end of treatment where time (in weeks) was the independent variable and then, to assess maintenance of the observed effect, modeled regrowth from end of treatment to end of study where again time was the independent variable. In both models we specified compound symmetry as the initial covariance structure.

Supplemental Figure 1.



Supplemental Figure 1: Clinical photographs of selected patients at baseline, end of treatment, and end of observation off treatment.

Corresponding patient number is shown for clinical photographs. Left panels, labeled “a,” of each pair are baseline photographs; middle panels, labeled “b,” are photographs at the end of treatment with ruxolitinib; right panels, labeled “c,” are photographs at the end of the observation period off treatment.

Supplemental Figure 2.



Supplemental Figure 2. Ruxolitinib non-responder subjects: 5, 6, 7.

Corresponding patient numbers are shown for clinical photographs. Left panels, labeled “a,” of each pair, are baseline photographs; right panels, labeled “b,” are photographs at the end of treatment with ruxolitinib.

Supplemental Table 1.

Regression modeling time on drug and regrowth (Model 1) and maintenance of effect post therapy (Model 2).

	Model 1: Regrowth from baseline to EOT ¹					Model 2: Maintenance from EOT to EOS ²				
	b	SE(b)	df	t	p-value	b	SE(b)	df	t	p-value
Intercept	-2.4	5.6	11	-0.43	.679	245.5	33.2	7	7.4	.0001
Time	4.3	0.31	58	13.7	.0001	-5.6	1.1	7	-5.4	.001

¹The ICC for model 1 was .36. ²The ICC for model 2 was .56.

Model One describes the effect that exposure to ruxolitinib had on hair regrowth over time. Based on all 12 patients, the model suggests that for every week the patient is on ruxolitinib, regrowth improves by 4.3 percent ($p < .0001$). Model Two describes the maintenance of effect period between end of treatment and the end of the study. After treatment, the model predicts that for every week off ruxolitinib, regrowth declines by 5.6% ($p < .001$). Figure 1 in the manuscript text provides the graphical presentation of regression estimated and actual regrowth during and after treatment

Supplemental Table 2.

Transcripts differentially expressed between Responders at baseline and Normal controls. A threshold of fold-change > 2 and p-value < 0.05 was used to identify differentially expressed Affymetrix Probe Set IDs (PSIDs).

Probe.Set.ID	Gene.Symbol	Entrez.Gene	logFC	FC	P.Value	adj.P.Val
203915_at	CXCL9	4283	4.54	23.33	4.77E-06	0.00063
235763_at	SLC44A5	204962	3.88	14.74	0.010	0.075
32128_at	CCL18 /// LOC101060271	6362 /// 101060271	3.70	13.00	6.22E-06	0.00075
209924_at	CCL18 /// LOC101060271	6362 /// 101060271	3.60	12.14	7.92E-06	0.00086
211430_s_at	IGHG1 /// IGHG2 /// IGHM /// IGHV4-31	3500 /// 3501 /// 3507 /// 28396	3.37	10.34	0.0059	0.053
214677_x_at	IGLC1	3537	3.06	8.35	0.0016	0.024
204580_at	MMP12	4321	3.04	8.25	0.00024	0.0073
205758_at	CD8A	925	2.95	7.71	5.37E-06	0.00068
217022_s_at	IGH /// IGHA1 /// IGHA2	3492 /// 3493 /// 3494	2.87	7.30	0.017	0.100
215176_x_at	IGK /// IGKC	3514 /// 50802	2.85	7.23	0.011	0.078
211644_x_at	IGK /// IGKC	3514 /// 50802	2.85	7.19	0.016	0.098
204533_at	CXCL10	3627	2.84	7.14	0.00038	0.0097
209138_x_at	IGLC1	3537	2.82	7.08	0.0031	0.036
217138_x_at	IGLC1	3537	2.75	6.74	0.0016	0.023
212592_at	IGJ	3512	2.71	6.53	0.0066	0.057
206407_s_at	CCL13	6357	2.69	6.46	5.19E-05	0.0028
203400_s_at	TF	7018	2.61	6.11	0.00018	0.0060
214669_x_at	IGKC	3514	2.43	5.41	0.0074	0.061
216714_at	CCL13	6357	2.39	5.25	0.00013	0.0049
221651_x_at	IGK /// IGKC	3514 /// 50802	2.34	5.05	0.0068	0.058
221671_x_at	IGK /// IGKC	3514 /// 50802	2.32	5.00	0.0088	0.068
206666_at	GZMK	3003	2.26	4.80	4.97E-05	0.0027
224795_x_at	IGK /// IGKC	3514 /// 50802	2.25	4.74	0.0084	0.066

214063_s_at	TF	7018	2.23	4.68	0.00028	0.0079
1552584_at	IL12RB1	3594	2.19	4.55	0.00015	0.0053
211796_s_at	TRBC1	28639	2.18	4.52	1.18E-05	0.0011
205030_at	FABP7	2173	2.14	4.42	0.012	0.084
217147_s_at	TRAT1	50852	2.11	4.32	0.00029	0.0080
210915_x_at	TRBC1	28639	2.06	4.17	2.20E-05	0.0016
205890_s_at	GABBR1 /// UBD	2550 /// 10537	2.05	4.14	0.00012	0.0046
215121_x_at	CYAT1 /// IGLC1 /// IGLV1-44	3537 /// 28823 /// 100290481	2.03	4.09	0.0024	0.030
206715_at	TFEC	22797	2.02	4.06	0.00016	0.0054
231776_at	EOMES	8320	2.01	4.03	6.12E-05	0.0030
214945_at	FAM153A /// FAM153B /// FAM153C /// LOC100507387	202134 /// 285596 /// 653316 /// 100507387	1.97	3.91	0.00021	0.0065
213193_x_at	TRBC1	28639	1.95	3.88	4.44E-05	0.0025
211643_x_at	IGK /// IGKC	3514 /// 50802	1.95	3.87	0.048	0.188
216920_s_at	TARP /// TRGC2	6967 /// 445347	1.91	3.75	0.00027	0.0077
219386_s_at	SLAMF8	56833	1.91	3.75	0.00013	0.0048
1405_i_at	CCL5	6352	1.91	3.75	1.96E-06	0.00034
207847_s_at	MUC1	4582	1.89	3.72	0.0090	0.069
204655_at	CCL5	6352	1.89	3.71	4.09E-05	0.0024
205843_x_at	CRAT	1384	1.89	3.71	0.00050	0.011
214836_x_at	IGK /// IGKC	3514 /// 50802	1.86	3.62	0.010	0.074
227609_at	EPSTI1	94240	1.85	3.60	0.00068	0.014
206749_at	CD1B	910	1.84	3.58	5.64E-05	0.0029
214053_at	ERBB4	2066	1.83	3.55	9.59E-05	0.0040
205101_at	CIITA	4261	1.82	3.53	8.81E-05	0.0038
219666_at	MS4A6A	64231	1.82	3.52	0.00028	0.0079
214038_at	CCL8	6355	1.81	3.50	0.00061	0.013
205987_at	CD1C	911	1.81	3.50	5.05E-06	0.00065
216207_x_at	IGKC	3514	1.79	3.47	0.040	0.170

207466_at	GAL	51083	1.79	3.45	0.00084	0.016
215379_x_at	IGLV1-44	28823	1.79	3.45	0.0039	0.041
203416_at	CD53	963	1.78	3.43	7.54E-06	0.00084
205029_s_at	FABP7	2173	1.77	3.42	0.032	0.150
204057_at	IRF8	3394	1.77	3.41	2.32E-05	0.0017
206545_at	CD28	940	1.77	3.41	1.91E-05	0.0015
1558972_s_at	THEMIS	387357	1.75	3.36	0.00043	0.010
213920_at	CUX2	23316	1.74	3.33	0.0047	0.046
204836_at	GLDC	2731	1.73	3.31	0.00018	0.0061
229534_at	ACOT4	122970	1.72	3.30	0.0017	0.024
214240_at	GAL	51083	1.70	3.26	0.00057	0.012
204529_s_at	TOX	9760	1.70	3.25	2.37E-07	0.000094
205821_at	KLRC4-KLRK1 /// KLRK1	22914 /// 100528032	1.70	3.25	0.00018	0.0059
204279_at	PSMB9	5698	1.68	3.20	3.00E-05	0.0020
1559584_a_at	C16orf54	283897	1.67	3.18	3.22E-06	0.00048
213475_s_at	ITGAL	3683	1.67	3.18	0.00025	0.0073
219716_at	APOL6	80830	1.67	3.17	5.67E-08	0.000037
232234_at	SLA2	84174	1.67	3.17	7.09E-06	0.00082
211339_s_at	ITK	3702	1.66	3.16	0.00022	0.0068
228094_at	AMICA1	120425	1.66	3.16	4.19E-05	0.0024
229723_at	TAGAP	117289	1.66	3.15	1.81E-05	0.0015
228592_at	MS4A1	931	1.65	3.14	0.031	0.146
215806_x_at	TARP /// TRGC2	6967 /// 445347	1.65	3.13	0.00022	0.0068
227266_s_at	FYB	2533	1.65	3.13	0.00019	0.0063
214617_at	PRF1	5551	1.64	3.12	1.49E-05	0.0013
1557116_at	APOL6	80830	1.64	3.12	1.34E-06	0.00026
1562364_at	GVINP1	387751	1.64	3.11	5.20E-05	0.0028
227794_at	GLYATL1 /// LOC100287413	92292 /// 100287413	1.64	3.11	0.0016	0.023
204205_at	APOBEC3G	60489	1.63	3.10	1.76E-06	0.00031
203828_s_at	IL32	9235	1.63	3.10	8.88E-	0.00093

					06	
205267_at	POU2AF1	5450	1.63	3.10	0.033	0.151
211144_x_at	TARP /// TRGC2	6967 /// 445347	1.63	3.10	0.00062	0.013
243585_at	ATP13A5	344905	1.63	3.09	8.99E- 06	0.00093
204714_s_at	F5	2153	1.62	3.08	0.00012	0.0048
220615_s_at	FAR2	55711	1.62	3.07	0.0052	0.050
205831_at	CD2	914	1.62	3.07	0.00037	0.0095
205269_at	LCP2	3937	1.61	3.05	3.47E- 05	0.0022
209823_x_at	HLA-DQB1 /// LOC101060835	3119 /// 101060835	1.61	3.05	6.12E- 07	0.00018
239380_at	C5orf27	202299	1.60	3.04	3.25E- 05	0.0021
224451_x_at	ARHGAP9	64333	1.60	3.04	9.38E- 05	0.0040
1559263_s_at	ZC3H12D	340152	1.60	3.04	6.59E- 06	0.00077
209498_at	CEACAM1	634	1.60	3.03	1.74E- 05	0.0014
209795_at	CD69	969	1.60	3.03	8.36E- 05	0.0037
219505_at	CECR1	51816	1.60	3.03	0.0032	0.036
1560697_at	TRHDE-AS1	283392	1.59	3.02	0.00024	0.0072
236295_s_at	NLRC3	197358	1.59	3.01	0.00021	0.0066
222088_s_at	SLC2A14 /// SLC2A3	6515 /// 144195	1.59	3.01	1.36E- 06	0.00026
227677_at	JAK3	3718	1.59	3.01	5.77E- 05	0.0029
203673_at	TG	7038	1.59	3.00	8.17E- 06	0.00088
204118_at	CD48	962	1.59	3.00	0.0011	0.019
34210_at	CD52	1043	1.58	3.00	7.58E- 05	0.0035
238725_at	IRF1	3659	1.56	2.95	0.00014	0.0050
226622_at	MUC20	200958	1.55	2.94	0.00031	0.0084
215303_at	DCLK1	9201	1.55	2.93	0.0015	0.022
226474_at	NLRC5	84166	1.54	2.91	6.42E- 07	0.00018
205488_at	GZMA	3001	1.54	2.90	0.00051	0.012
231577_s_at	GBP1	2633	1.54	2.90	0.0023	0.030
207651_at	GPR171	29909	1.54	2.90	0.00010	0.0042
216834_at	RGS1	5996	1.53	2.90	0.00022	0.0068
204912_at	IL10RA	3587	1.53	2.88	4.83E- 06	0.00063

1560698_a_at	TRHDE-AS1	283392	1.53	2.88	0.00013	0.0049
202531_at	IRF1	3659	1.52	2.88	4.68E-05	0.0026
239237_at	LOC100506776	100506776	1.52	2.87	0.00029	0.0082
206623_at	PDE6A	5145	1.52	2.87	0.0091	0.070
203561_at	FCGR2A	2212	1.52	2.86	0.00067	0.014
207277_at	CD209	30835	1.51	2.86	0.00026	0.0076
226210_s_at	MEG3	55384	1.51	2.85	0.00017	0.0056
215946_x_at	IGLL3P	91353	1.51	2.84	0.00060	0.013
227168_at	MIAT	440823	1.50	2.82	0.0016	0.024
202957_at	HCLS1	3059	1.49	2.81	8.37E-05	0.0037
205404_at	HSD11B1	3290	1.49	2.81	0.0023	0.030
207067_s_at	HDC	3067	1.49	2.80	0.00030	0.0082
213418_at	HSPA6	3310	1.48	2.80	0.00046	0.011
210576_at	CYP4F8	11283	1.47	2.78	0.00010	0.0042
213539_at	CD3D	915	1.47	2.77	4.97E-05	0.0027
204661_at	CD52	1043	1.46	2.76	0.00043	0.010
229857_s_at	KANSL1-AS1	644246	1.46	2.76	0.015	0.095
227353_at	TMC8	147138	1.46	2.75	0.00026	0.0076
210164_at	GZMB	3002	1.46	2.75	0.00014	0.0052
203471_s_at	PLEK	5341	1.46	2.75	0.00035	0.0091
210889_s_at	FCGR2B	2213	1.46	2.75	0.0036	0.039
223280_x_at	MS4A6A	64231	1.44	2.72	0.00018	0.0060
228219_s_at	UPB1	51733	1.44	2.71	0.034	0.154
210972_x_at	TRAC /// TRAJ17 /// TRAV20	28663 /// 28738 /// 28755	1.44	2.71	0.00015	0.0054
235643_at	SAMD9L	219285	1.44	2.70	0.0018	0.025
209374_s_at	IGHM	3507	1.43	2.70	0.026	0.130
235080_at	CLUAP1	23059	1.43	2.70	0.00013	0.0048
1554240_a_at	ITGAL	3683	1.43	2.69	0.00032	0.0087
204821_at	BTN3A3	10384	1.42	2.68	1.97E-05	0.0015
206082_at	HCP5	10866	1.42	2.68	2.36E-09	0.0000053
235175_at	GBP4	115361	1.42	2.68	0.0024	0.030
224357_s_at	MS4A4A	51338	1.42	2.68	0.0078	0.063
228532_at	C1orf162	128346	1.42	2.67	2.10E-05	0.0016
223562_at	PARVG	64098	1.42	2.67	5.70E-05	0.0029
213693_s_at	MUC1	4582	1.41	2.66	0.0013	0.021

209606_at	CYTIP	9595	1.41	2.65	0.00029	0.0081
244345_at	CADM1	23705	1.41	2.65	8.81E-05	0.0038
214321_at	NOV	4856	1.41	2.65	0.0051	0.049
221009_s_at	ANGPTL4	51129	1.40	2.65	3.27E-05	0.0021
206214_at	PLA2G7	7941	1.40	2.64	0.0076	0.062
229390_at	FAM26F	441168	1.40	2.64	0.00073	0.014
213240_s_at	KRT4	3851	1.40	2.63	0.0010	0.018
234513_at	ELOVL3	83401	1.39	2.62	0.0038	0.040
209969_s_at	STAT1	6772	1.39	2.62	0.0011	0.019
209083_at	CORO1A	11151	1.38	2.60	0.00012	0.0047
209813_x_at	TARP	445347	1.37	2.59	0.0030	0.035
209686_at	S100B	6285	1.37	2.59	0.00012	0.0046
235004_at	RBM24	221662	1.36	2.57	0.00011	0.0043
228869_at	SNX20	124460	1.36	2.57	5.05E-05	0.0027
210247_at	SYN2	6854	1.36	2.57	9.88E-05	0.0041
210377_at	ACSM3	6296	1.36	2.57	0.0035	0.039
239297_at	KIAA1456	57604	1.36	2.57	1.62E-05	0.0014
1555854_at	AKR1C1 /// AKR1C2 /// LOC101060798	1645 /// 1646 /// 101060798	1.36	2.57	3.63E-05	0.0022
210163_at	CXCL11	6373	1.36	2.57	0.015	0.093
221142_s_at	PECR	55825	1.36	2.56	0.010	0.075
218876_at	TPPP3	51673	1.36	2.56	0.0097	0.073
228494_at	PPP1R9A	55607	1.35	2.55	0.0012	0.019
204891_s_at	LCK	3932	1.35	2.55	0.0011	0.019
229383_at	1-Mar	55016	1.34	2.54	3.11E-05	0.0020
211695_x_at	MUC1	4582	1.34	2.53	0.0097	0.072
211126_s_at	CSRP2	1466	1.34	2.53	2.54E-05	0.0018
236782_at	SAMD3	154075	1.34	2.53	7.24E-05	0.0034
221978_at	HLA-F	3134	1.34	2.52	0.00079	0.015
242845_at	RUNX1T1	862	1.33	2.52	3.20E-07	0.00012
230611_at	SYPL2	284612	1.33	2.51	0.0091	0.070
226436_at	RASSF4	83937	1.33	2.51	2.92E-06	0.00045
211656_x_at	HLA-DQB1 /// LOC101060835	3119 /// 101060835	1.33	2.51	1.36E-05	0.0012
220435_at	SLC30A10	55532	1.33	2.51	0.025	0.127

229437_at	MIR155 /// MIR155HG	114614 /// 406947	1.32	2.50	0.0041	0.043
1554899_s_at	FCER1G	2207	1.32	2.50	7.46E- 05	0.0034
229241_at	LDHD	197257	1.32	2.49	0.00069	0.014
232311_at	B2M	567	1.32	2.49	0.00027	0.0077
224009_x_at	DHRS9	10170	1.32	2.49	0.0080	0.064
214450_at	CTSW	1521	1.32	2.49	0.00074	0.015
217478_s_at	HLA-DMA	3108	1.31	2.48	1.14E- 05	0.0011
219759_at	ERAP2	64167	1.30	2.46	0.0072	0.060
208450_at	LGALS2	3957	1.30	2.46	0.0014	0.022
201562_s_at	SORD	6652	1.30	2.45	0.0036	0.039
204160_s_at	ENPP4	22875	1.29	2.44	0.00032	0.0087
203296_s_at	ATP1A2	477	1.29	2.44	0.0019	0.026
219799_s_at	DHRS9	10170	1.29	2.44	0.019	0.108
209901_x_at	AIF1	199	1.29	2.44	0.0015	0.022
220003_at	LRRC36	55282	1.28	2.43	0.0047	0.046
38241_at	BTN3A3	10384	1.28	2.43	2.94E- 05	0.0020
226811_at	FAM46C	54855	1.27	2.42	0.00028	0.0080
204070_at	RARRES3	5920	1.27	2.42	0.00015	0.0054
215172_at	PTPN20A /// PTPN20B	26095 /// 653129	1.27	2.42	0.037	0.162
226311_at	ADAMTS2	9509	1.27	2.41	0.0020	0.027
202411_at	IFI27	3429	1.27	2.40	0.0054	0.050
1555687_a_at	CLEC4C	170482	1.26	2.39	0.0064	0.056
44673_at	SIGLEC1	6614	1.26	2.39	0.0043	0.044
212588_at	PTPRC	5788	1.25	2.39	0.0010	0.018
230962_at	DCLK1	9201	1.25	2.38	0.00037	0.0094
226878_at	HLA-DOA	3111	1.25	2.38	0.00067	0.014
214399_s_at	KRT4	3851	1.25	2.37	0.0068	0.058
205786_s_at	ITGAM	3684	1.25	2.37	0.0050	0.048
209670_at	TRAC	28755	1.25	2.37	0.00015	0.0054
224356_x_at	MS4A6A	64231	1.24	2.37	0.00080	0.015
229222_at	ACSS3	79611	1.24	2.37	0.00014	0.0052
227346_at	IKZF1	10320	1.24	2.36	0.0045	0.045
227722_at	RPS23	6228	1.23	2.35	0.00046	0.011
205992_s_at	IL15	3600	1.23	2.35	5.69E- 05	0.0029
223922_x_at	MS4A6A	64231	1.23	2.35	0.00059	0.013
230560_at	STXBP6	29091	1.23	2.35	0.0040	0.042
230180_at	DDX17	10521	1.23	2.34	0.0071	0.060

244485_at	HLA-DPB1	3115	1.23	2.34	0.042	0.174
223220_s_at	PARP9	83666	1.22	2.33	8.52E-05	0.0037
204438_at	MRC1	4360	1.22	2.33	9.35E-05	0.0040
204852_s_at	PTPN7	5778	1.22	2.33	1.99E-05	0.0015
235276_at	EPSTI1	94240	1.22	2.33	0.0015	0.023
242268_at	CELF2	10659	1.21	2.32	1.25E-05	0.0012
226818_at	MPEG1	219972	1.21	2.31	0.0010	0.018
214243_s_at	SERHL /// SERHL2	94009 /// 253190	1.21	2.31	0.028	0.136
243606_at	NXPE3	91775	1.21	2.31	3.82E-05	0.0023
230550_at	MS4A6A	64231	1.21	2.31	0.0061	0.054
229288_at	EPHA7	2045	1.21	2.31	0.00017	0.0058
237974_at	ABHD12B /// MIR4454	145447 /// 100616234	1.20	2.30	0.036	0.158
204440_at	CD83	9308	1.20	2.30	0.0021	0.028
227183_at	MIR143HG /// MIR145	406937 /// 728264	1.20	2.30	0.00013	0.0048
230422_at	FPR3	2359	1.20	2.30	0.0011	0.018
204198_s_at	RUNX3	864	1.20	2.30	9.05E-05	0.0039
117_at	HSPA6	3310	1.20	2.29	0.00072	0.014
205456_at	CD3E	916	1.20	2.29	0.00088	0.016
207238_s_at	PTPRC	5788	1.19	2.29	0.00089	0.016
208510_s_at	PPARG	5468	1.19	2.29	9.91E-05	0.0041
235104_at	ERAP2	64167	1.19	2.28	0.025	0.128
221059_s_at	COTL1	23406	1.19	2.28	7.75E-06	0.00085
238448_at	MRPL19	9801	1.19	2.28	0.00014	0.0052
214081_at	PLXDC1	57125	1.19	2.28	0.00050	0.011
231384_at	GRIN2A	2903	1.19	2.28	0.013	0.086
229866_at	STK32A	202374	1.19	2.28	0.0072	0.060
219452_at	DPEP2	64174	1.19	2.27	2.58E-05	0.0018
221875_x_at	HLA-F	3134	1.18	2.27	2.30E-06	0.00038
204994_at	MX2	4600	1.18	2.27	0.0022	0.029
220330_s_at	SAMSN1	64092	1.18	2.27	0.0039	0.041
212613_at	BTN3A2	11118	1.18	2.27	2.16E-06	0.00036
206637_at	P2RY14	9934	1.18	2.27	2.20E-	0.0016

					05	
223605_at	SLC25A18	83733	1.18	2.27	0.0043	0.044
218084_x_at	FXD5	53827	1.18	2.26	4.27E-07	0.00014
219131_at	UBIAD1	29914	1.18	2.26	0.0010	0.018
210538_s_at	BIRC3	330	1.17	2.26	0.010	0.076
213095_x_at	AIF1	199	1.17	2.25	0.00097	0.017
205942_s_at	ACSM3	6296	1.17	2.25	0.029	0.141
214913_at	ADAMTS3	9508	1.17	2.25	0.00015	0.0053
231941_s_at	MUC20	200958	1.17	2.25	0.0096	0.072
1555416_a_at	ALOX15B	247	1.17	2.25	0.0093	0.071
229748_x_at	LOC100233156 /// MAFIP /// TEKT4P2	727764 /// 100132288 /// 100233156	1.17	2.24	0.017	0.100
228160_at	LINC00667	339290	1.16	2.24	0.011	0.077
232001_at	PRKCQ-AS1	439949	1.16	2.24	0.00023	0.0071
236175_at	TRIM55	84675	1.16	2.24	0.036	0.160
217626_at	AKR1C1	1645	1.16	2.24	0.0020	0.027
222889_at	DCLRE1B	64858	1.16	2.23	0.0018	0.025
232617_at	CTSS	1520	1.16	2.23	0.00022	0.0068
211795_s_at	FYB	2533	1.16	2.23	0.0014	0.022
202269_x_at	GBP1	2633	1.15	2.22	0.015	0.096
215082_at	ELOVL5	60481	1.15	2.22	0.0059	0.054
219519_s_at	SIGLEC1	6614	1.15	2.22	0.0080	0.064
208035_at	GRM6	2916	1.15	2.22	0.021	0.116
219607_s_at	MS4A4A	51338	1.15	2.22	0.030	0.144
205270_s_at	LCP2	3937	1.15	2.22	0.00031	0.0084
210432_s_at	SCN3A	6328	1.15	2.21	0.0024	0.030
204161_s_at	ENPP4	22875	1.15	2.21	0.00026	0.0076
205221_at	HGD	3081	1.14	2.21	0.019	0.109
218322_s_at	ACSL5	51703	1.14	2.21	0.00021	0.0065
223952_x_at	DHRS9	10170	1.14	2.20	0.014	0.092
237316_at	ANKDD1A	348094	1.14	2.20	0.021	0.116
205043_at	CFTR	1080	1.14	2.20	0.0084	0.066
218699_at	RAB7L1	8934	1.14	2.20	0.00036	0.0094
226603_at	SAMD9L	219285	1.14	2.20	0.0029	0.034
212587_s_at	PTPRC	5788	1.13	2.19	0.0010	0.018
211654_x_at	HLA-DQB1	3119	1.13	2.19	0.0024	0.030
221080_s_at	DENND1C	79958	1.13	2.19	7.68E-05	0.0035
216852_x_at	IGLJ3	28831	1.13	2.19	0.026	0.130
209016_s_at	KRT7	3855	1.13	2.18	0.00040	0.0099

230040_at	ADAMTS18	170692	1.13	2.18	1.81E-05	0.0015
222750_s_at	SRD5A3	79644	1.12	2.18	0.0064	0.056
203596_s_at	IFIT5	24138	1.12	2.18	3.14E-05	0.0020
202086_at	MX1	4599	1.12	2.18	0.0077	0.063
206978_at	CCR2	729230	1.12	2.18	0.014	0.090
229619_at	FOLR2	2350	1.12	2.17	0.0076	0.062
241368_at	PLIN5	440503	1.12	2.17	0.0063	0.056
205419_at	GPR183	1880	1.12	2.17	0.0010	0.018
205804_s_at	TRAF3IP3	80342	1.12	2.17	0.0026	0.032
235515_at	SYNE4	163183	1.12	2.17	4.61E-05	0.0026
203523_at	LSP1	4046	1.12	2.17	1.05E-05	0.0010
1554712_a_at	GLYATL2	219970	1.12	2.17	0.00091	0.016
214339_s_at	MAP4K1	11184	1.11	2.17	2.92E-05	0.0020
205098_at	CCR1	1230	1.11	2.16	0.0034	0.038
204197_s_at	RUNX3	864	1.11	2.16	3.27E-05	0.0021
205769_at	SLC27A2	11001	1.11	2.16	0.0070	0.059
236539_at	PTPN22	26191	1.11	2.16	0.0031	0.036
224583_at	COTL1	23406	1.11	2.16	7.75E-06	0.00085
44790_s_at	KIAA0226L	80183	1.11	2.16	0.0063	0.056
230782_at	SORD	6652	1.11	2.16	0.019	0.107
228368_at	ARHGAP20	57569	1.11	2.16	7.99E-05	0.0036
209846_s_at	BTN3A2	11118	1.11	2.16	0.00074	0.015
209734_at	NCKAP1L	3071	1.11	2.15	0.0032	0.036
227344_at	IKZF1	10320	1.11	2.15	0.00058	0.013
229649_at	NRXN3	9369	1.11	2.15	0.00037	0.0095
219195_at	PPARGC1A	10891	1.11	2.15	0.00036	0.0094
228617_at	XAF1	54739	1.11	2.15	0.0031	0.036
211685_s_at	NCALD	83988	1.10	2.15	0.0035	0.039
239309_at	DLX6	1750	1.10	2.15	0.010	0.074
229497_at	ANKDD1A	348094	1.10	2.15	0.0014	0.022
209522_s_at	CRAT	1384	1.10	2.15	0.0010	0.018
206026_s_at	TNFAIP6	7130	1.10	2.15	0.00029	0.0081
202988_s_at	RGS1	5996	1.10	2.15	0.0026	0.032
1569112_at	SLC44A5	204962	1.10	2.14	0.0063	0.055
237592_at	ZC2HC1B	153918	1.10	2.14	0.0046	0.046
202803_s_at	ITGB2	3689	1.10	2.14	0.012	0.082

214181_x_at	LST1	7940	1.10	2.14	6.59E-05	0.0032
206682_at	CLEC10A	10462	1.09	2.13	5.25E-05	0.0028
204777_s_at	MAL	4118	1.09	2.13	0.0033	0.037
225353_s_at	C1QC	714	1.09	2.13	0.0085	0.066
204959_at	MNDA	4332	1.09	2.13	0.0013	0.020
209966_x_at	ESRRG	2104	1.09	2.13	8.77E-05	0.0038
215133_s_at	FAM153A /// FAM153B /// LOC100507387 /// LOC100507427	202134 /// 285596 /// 100507387 /// 100507427	1.09	2.13	0.030	0.143
228796_at	CPNE4	131034	1.09	2.12	0.010	0.075
215049_x_at	CD163	9332	1.09	2.12	0.031	0.145
210321_at	GZMH	2999	1.08	2.12	0.00079	0.015
208121_s_at	PTPRO	5800	1.08	2.12	3.42E-05	0.0022
206150_at	CD27	939	1.08	2.12	0.0018	0.026
1567627_at	CD74	972	1.08	2.12	4.45E-05	0.0025
206133_at	XAF1	54739	1.08	2.12	0.0017	0.025
234987_at	SAMHD1	25939	1.08	2.11	0.0011	0.018
229800_at	DCLK1	9201	1.08	2.11	0.0014	0.021
230440_at	ZNF469	84627	1.08	2.11	4.01E-05	0.0024
206974_at	CXCR6	10663	1.07	2.11	0.0043	0.044
206296_x_at	MAP4K1	11184	1.07	2.11	5.72E-05	0.0029
1557236_at	APOL6	80830	1.07	2.11	0.00049	0.011
203892_at	WFDC2	10406	1.07	2.10	0.00091	0.016
214434_at	HSPA12A	259217	1.07	2.10	4.41E-05	0.0025
1557474_at	LOC284578	284578	1.07	2.10	0.036	0.159
210038_at	PRKCQ	5588	1.07	2.10	0.0016	0.024
220357_s_at	SGK2	10110	1.07	2.10	0.0012	0.020
1562249_at	EPHA1-AS1	285965	1.07	2.10	0.0016	0.024
239108_at	FAR2	55711	1.07	2.10	0.011	0.079
223691_at	RGS22	26166	1.07	2.10	0.00054	0.012
210439_at	ICOS	29851	1.07	2.09	0.0014	0.021
238581_at	GBP5	115362	1.07	2.09	0.0016	0.024
220026_at	CLCA4	22802	1.07	2.09	0.00060	0.013
204563_at	SELL	6402	1.06	2.09	0.0064	0.056
204232_at	FCER1G	2207	1.06	2.09	0.00011	0.0044

229348_at	UBIAD1	29914	1.06	2.09	0.0010	0.018
205083_at	AOX1	316	1.06	2.08	0.011	0.077
231175_at	BEND6	221336	1.06	2.08	0.0032	0.037
202270_at	GBP1	2633	1.06	2.08	0.011	0.076
210184_at	ITGAX	3687	1.05	2.08	0.0020	0.027
206641_at	TNFRSF17	608	1.05	2.08	0.022	0.119
239552_at	VWDE	221806	1.05	2.08	0.012	0.082
204829_s_at	FOLR2	2350	1.05	2.08	0.014	0.089
215051_x_at	AIF1	199	1.05	2.07	0.0042	0.043
227083_at	B3GALT	145173	1.05	2.07	0.0041	0.043
204446_s_at	ALOX5	240	1.05	2.07	0.0016	0.023
213888_s_at	TRAF3IP3	80342	1.05	2.07	0.014	0.090
1552509_a_at	CD300LG	146894	1.05	2.07	0.045	0.182
214453_s_at	IFI44	10561	1.05	2.07	0.0019	0.026
206983_at	CCR6	1235	1.05	2.07	0.0070	0.059
205213_at	ACAP1	9744	1.05	2.07	0.00010	0.0042
235458_at	HAVCR2	84868	1.04	2.06	6.24E-05	0.0031
209156_s_at	COL6A2	1292	1.04	2.06	0.00029	0.0080
211653_x_at	AKR1C2 /// LOC101060798	1646 /// 101060798	1.04	2.06	0.0011	0.019
211911_x_at	HLA-B	3106	1.04	2.06	5.63E-06	0.00071
209765_at	ADAM19	8728	1.04	2.06	0.00014	0.0052
232543_x_at	ARHGAP9	64333	1.04	2.06	0.0026	0.032
237335_at	ZP1	22917	1.04	2.06	0.0026	0.032
229391_s_at	FAM26F	441168	1.04	2.06	0.0013	0.021
227733_at	TMEM63C	57156	1.04	2.05	7.25E-05	0.0034
232428_at	MOGAT2	80168	1.04	2.05	0.015	0.093
230391_at	CD84	8832	1.04	2.05	0.011	0.080
208885_at	LCP1	3936	1.04	2.05	1.30E-05	0.0012
214567_s_at	XCL1 /// XCL2	6375 /// 6846	1.03	2.05	0.0012	0.019
226142_at	GLIPR1	11010	1.03	2.05	3.50E-05	0.0022
235129_at	PPP1R1A	5502	1.03	2.04	0.024	0.126
203708_at	PDE4B	5142	1.03	2.04	0.0017	0.025
229464_at	MYEF2	50804	1.03	2.04	0.00030	0.0083
219909_at	MMP28	79148	1.03	2.04	0.0012	0.020
228057_at	DDIT4L	115265	1.03	2.04	0.024	0.126
207522_s_at	ATP2A3	489	1.03	2.04	0.0100	0.074
230805_at	MIR142	406934	1.03	2.04	7.27E-	0.0034

					05	
205511_at	FLJ10038	55056	1.03	2.04	0.00023	0.0071
229477_at	THRSP	7069	1.03	2.04	0.0030	0.035
205161_s_at	PEX11A	8800	1.03	2.04	0.00084	0.016
241765_at	CPM	1368	1.03	2.04	0.00023	0.0071
210395_x_at	MYL4	4635	1.02	2.03	0.0040	0.042
227194_at	FAM3B	54097	1.02	2.03	0.0095	0.071
228573_at	ANTXR2	118429	1.02	2.03	0.0014	0.022
206695_x_at	ZNF43	7594	1.02	2.03	0.0065	0.057
1553583_a_at	THRSP	7069	1.02	2.03	0.0013	0.021
213915_at	NKG7	4818	1.02	2.03	0.00024	0.0072
202307_s_at	TAP1	6890	1.02	2.02	1.90E-06	0.00033
204806_x_at	HLA-F	3134	1.01	2.02	2.99E-06	0.00046
212624_s_at	CHN1	1123	1.01	2.02	4.59E-06	0.00061
206204_at	GRB14	2888	1.01	2.02	0.025	0.127
227458_at	CD274	29126	1.01	2.01	0.0032	0.037
205381_at	LRRC17	10234	1.01	2.01	0.00050	0.011
230453_s_at	ATP2A3	489	1.01	2.01	0.0047	0.046
203920_at	NR1H3	10062	1.01	2.01	8.80E-05	0.0038
228152_s_at	DDX60L	91351	1.01	2.01	0.00049	0.011
220177_s_at	TMPRSS3	64699	1.01	2.01	0.020	0.111
205097_at	SLC26A2	1836	1.01	2.01	0.011	0.079
236029_at	FAT3	120114	1.00	2.01	0.0047	0.046
219385_at	SLAMF8	56833	1.00	2.01	0.0010	0.018
207949_s_at	ICA1	3382	1.00	2.01	5.94E-05	0.0030
208018_s_at	HCK	3055	1.00	2.01	8.99E-05	0.0039
204972_at	OAS2	4939	1.00	2.01	0.045	0.182
206513_at	AIM2	9447	1.00	2.00	0.00017	0.0058
230036_at	SAMD9L	219285	1.00	2.00	0.0019	0.027
231769_at	FBXO6	26270	1.00	2.00	4.74E-05	0.0026
219369_s_at	OTUB2	78990	-1.00	-2.00	0.0055	0.051
221881_s_at	CLIC4	25932	-1.00	-2.00	4.84E-06	0.00063
1558387_at	UG0898H09	643763	-1.00	-2.00	0.019	0.110
206137_at	RIMS2	9699	-1.01	-2.01	5.12E-06	0.00066
220482_s_at	SERGEF	26297	-1.01	-2.01	2.80E-05	0.0019

234316_x_at	KLK12	43849	-1.01	-2.01	0.00036	0.0094
224008_s_at	KCNK7	10089	-1.01	-2.01	0.00068	0.014
204141_at	TUBB2A	7280	-1.01	-2.01	8.89E-08	0.000049
221389_at	PLA2G2E	30814	-1.01	-2.02	1.03E-06	0.00023
205637_s_at	SH3GL3	6457	-1.01	-2.02	0.0022	0.028
224724_at	SULF2	55959	-1.01	-2.02	5.71E-07	0.00017
216129_at	ATP9A	10079	-1.01	-2.02	0.0042	0.044
237070_at	TRPM1	4308	-1.01	-2.02	0.027	0.135
202693_s_at	STK17A	9263	-1.02	-2.02	0.0012	0.020
229396_at	OVOL1	5017	-1.02	-2.03	0.00011	0.0044
244811_at	PHIP	55023	-1.02	-2.03	0.00078	0.015
209387_s_at	TM4SF1	4071	-1.02	-2.03	1.19E-06	0.00025
225295_at	SLC39A10	57181	-1.02	-2.03	0.00064	0.013
228846_at	MXD1	4084	-1.03	-2.04	0.00027	0.0077
229065_at	SLC35F3	148641	-1.03	-2.04	2.25E-07	0.000092
227410_at	FAM43A	131583	-1.03	-2.04	9.45E-08	0.000049
211349_at	SLC15A1	6564	-1.03	-2.04	0.0056	0.052
226968_at	KIF1B	23095	-1.03	-2.04	0.00020	0.0064
224325_at	FZD8	8325	-1.03	-2.04	0.0021	0.028
242899_at	SESN3	143686	-1.03	-2.04	0.00044	0.011
212686_at	PPM1H	57460	-1.03	-2.04	5.93E-05	0.0030
200906_s_at	PALLD	23022	-1.03	-2.05	0.00044	0.010
206758_at	EDN2	1907	-1.03	-2.05	2.86E-06	0.00044
223078_s_at	TMOD3	29766	-1.04	-2.05	2.34E-06	0.00038
222878_s_at	OTUB2	78990	-1.04	-2.05	0.0026	0.032
239719_at	CD109	135228	-1.04	-2.05	2.29E-07	0.000092
226899_at	UNC5B	219699	-1.04	-2.05	1.18E-05	0.0011
209173_at	AGR2	10551	-1.04	-2.06	0.038	0.163
230748_at	SLC16A6	9120	-1.04	-2.06	0.0016	0.023
217933_s_at	LAP3	51056	-1.04	-2.06	3.63E-08	0.000032
207525_s_at	GIPC1	10755	-1.04	-2.06	4.76E-06	0.00063
1557197_a_at	LGALS3	3958	-1.04	-2.06	0.00020	0.0063
209273_s_at	ISCA1	81689	-1.05	-2.06	1.63E-	0.00030

					06	
235874_at	PRSS35	167681	-1.05	-2.07	0.00030	0.0083
238478_at	BNC2	54796	-1.05	-2.07	0.0010	0.018
1562391_at	B3GALNT2	148789	-1.05	-2.07	2.31E-05	0.0017
217897_at	FXVD6	53826	-1.05	-2.08	5.11E-05	0.0027
219660_s_at	ATP8A2	51761	-1.05	-2.08	3.82E-06	0.00055
238013_at	PLEKHA2	59339	-1.06	-2.08	0.0018	0.026
1553539_at	KRT74	121391	-1.06	-2.08	1.36E-05	0.0012
235723_at	BNC2	54796	-1.06	-2.08	0.0021	0.028
226681_at	UBE2H	7328	-1.06	-2.09	2.31E-06	0.00038
1553711_a_at	FAM218A	152756	-1.06	-2.09	0.00056	0.012
206196_s_at	RUNDC3A	10900	-1.06	-2.09	1.55E-06	0.00029
1553722_s_at	RNF152	220441	-1.06	-2.09	6.60E-09	0.0000099
214068_at	BEAN1	146227	-1.06	-2.09	0.0020	0.027
220272_at	BNC2	54796	-1.07	-2.10	0.00039	0.0098
215471_s_at	MAP7	9053	-1.07	-2.10	1.19E-06	0.00025
205125_at	PLCD1	5333	-1.07	-2.10	2.58E-07	0.00010
214036_at	EFNA5	1946	-1.07	-2.10	4.47E-07	0.00015
208637_x_at	ACTN1	87	-1.07	-2.10	1.18E-06	0.00025
231711_at	ACPP	55	-1.07	-2.10	0.0018	0.026
221771_s_at	MPHOSPH8	54737	-1.07	-2.10	0.019	0.107
1569852_at	LSMEM1	286006	-1.08	-2.11	4.48E-08	0.000033
204790_at	SMAD7	4092	-1.08	-2.11	5.80E-08	0.000037
205334_at	S100A1	6271	-1.08	-2.11	0.011	0.077
223650_s_at	NRBF2	29982	-1.08	-2.11	9.14E-07	0.00022
222871_at	KLHDC8A	55220	-1.08	-2.11	7.24E-08	0.000043
205105_at	MAN2A1	4124	-1.08	-2.11	0.0013	0.020
217428_s_at	COL10A1	1300	-1.08	-2.11	0.0011	0.019
215198_s_at	CALD1	800	-1.08	-2.12	8.20E-06	0.00088
229290_at	DAPL1	92196	-1.08	-2.12	3.75E-05	0.0023

206409_at	TIAM1	7074	-1.08	-2.12	0.00046	0.011
226698_at	FCHSD1	89848	-1.09	-2.12	0.0012	0.019
213033_s_at	NFIB	4781	-1.09	-2.12	0.0027	0.033
231192_at	LPAR3	23566	-1.09	-2.12	4.78E-05	0.0026
229518_at	FAM46B	115572	-1.09	-2.13	6.19E-05	0.0031
204751_x_at	DSC2	1824	-1.09	-2.13	0.0022	0.028
228786_at	PTCHD3P1	387647	-1.09	-2.13	0.00021	0.0067
213880_at	LGR5	8549	-1.09	-2.13	0.0013	0.020
232315_at	ZNF880	400713	-1.09	-2.13	0.0059	0.053
233203_at	ROPN1	54763	-1.10	-2.14	1.97E-05	0.0015
218182_s_at	CLDN1	9076	-1.10	-2.14	0.0013	0.021
215779_s_at	HIST1H2BC /// HIST1H2BE /// HIST1H2BF /// HIST1H2BG /// HIST1H2BI /// NCALD	8339 /// 8343 /// 8344 /// 8346 /// 8347 /// 83988	-1.10	-2.14	8.54E-05	0.0037
238741_at	FAM83A	84985	-1.10	-2.14	0.00027	0.0077
220067_at	SPTBN5	51332	-1.10	-2.14	1.34E-07	0.000064
222853_at	FLRT3	23767	-1.10	-2.14	1.48E-07	0.000069
210948_s_at	LEF1	51176	-1.10	-2.15	5.24E-05	0.0028
211071_s_at	MLLT11	10962	-1.10	-2.15	2.84E-06	0.00044
205899_at	CCNA1	8900	-1.10	-2.15	1.36E-05	0.0012
215268_at	KIAA0754	643314	-1.11	-2.15	4.22E-06	0.00058
1553494_at	TDH	157739	-1.11	-2.16	0.0011	0.019
226535_at	ITGB6	3694	-1.11	-2.16	3.99E-06	0.00057
230498_at	MCHR1	2847	-1.11	-2.16	4.62E-05	0.0026
208621_s_at	EZR	7430	-1.11	-2.16	6.41E-07	0.00018
203017_s_at	SSX2IP	117178	-1.11	-2.16	0.00014	0.0051
206882_at	SLC1A6	6511	-1.11	-2.16	8.72E-10	0.0000032
217230_at	EZR	7430	-1.11	-2.16	2.19E-07	0.000091
227911_at	ARHGAP28	79822	-1.11	-2.16	6.12E-05	0.0030

225106_s_at	OGFOD1	55239	-1.12	-2.18	0.0016	0.023
1553574_at	IFNE	338376	-1.13	-2.18	1.33E-08	0.000016
212942_s_at	KIAA1199	57214	-1.13	-2.19	9.16E-05	0.0039
205918_at	SLC4A3	6508	-1.13	-2.19	7.56E-06	0.00084
204393_s_at	ACPP	55	-1.13	-2.19	0.0073	0.061
205472_s_at	DACH1	1602	-1.13	-2.19	5.58E-06	0.00070
1562628_at	KRT40	125115	-1.13	-2.20	0.00057	0.012
200744_s_at	GNB1	2782	-1.13	-2.20	2.53E-09	0.0000054
226187_at	CDS1	1040	-1.14	-2.20	2.26E-07	0.000092
202695_s_at	STK17A	9263	-1.14	-2.20	8.12E-05	0.0036
214417_s_at	FETUB	26998	-1.14	-2.20	5.71E-05	0.0029
224277_at	MOP-1	643616	-1.14	-2.20	0.00012	0.0046
229644_at	PREP	5550	-1.14	-2.20	0.0018	0.026
220977_x_at	EPB41L5	57669	-1.14	-2.21	0.00065	0.013
223879_s_at	OXR1	55074	-1.14	-2.21	1.94E-05	0.0015
237003_at	BEST3	144453	-1.14	-2.21	3.22E-06	0.00048
1553710_at	FAM218A	152756	-1.15	-2.21	0.0039	0.042
219612_s_at	FGG	2266	-1.15	-2.22	3.98E-07	0.00014
229252_at	ATG9B	285973	-1.15	-2.22	1.28E-05	0.0012
226599_at	FHDC1	85462	-1.15	-2.22	1.23E-06	0.00025
208650_s_at	CD24	100133941	-1.15	-2.23	0.0065	0.057
227080_at	ZNF697	90874	-1.16	-2.23	1.08E-05	0.0011
205535_s_at	PCDH7	5099	-1.16	-2.23	0.00020	0.0063
203925_at	GCLM	2730	-1.16	-2.23	0.0054	0.051
203367_at	DUSP14	11072	-1.16	-2.24	3.35E-07	0.00012
1557321_a_at	CAPN14	440854	-1.17	-2.24	0.028	0.138
222783_s_at	SMOC1	64093	-1.17	-2.25	4.06E-06	0.00057
1564307_a_at	A2ML1	144568	-1.17	-2.25	0.016	0.098
213713_s_at	GLB1L2	89944	-1.17	-2.25	7.48E-08	0.000043
205476_at	CCL20	6364	-1.17	-2.25	0.016	0.098

202883_s_at	PPP2R1B	5519	-1.17	-2.25	7.89E-06	0.00086
209242_at	PEG3	5178	-1.17	-2.26	6.07E-05	0.0030
1552487_a_at	BNC1	646	-1.18	-2.26	1.31E-05	0.0012
233301_at	OXCT2	64064	-1.18	-2.27	2.86E-09	0.0000057
226122_at	PLEKHG1	57480	-1.18	-2.27	1.07E-06	0.00024
228176_at	S1PR3	1903	-1.18	-2.27	2.55E-06	0.00041
234488_s_at	GMCL1 /// GMCL1P1	64395 /// 64396	-1.18	-2.27	1.90E-05	0.0015
203797_at	VSNL1	7447	-1.18	-2.27	5.71E-06	0.00071
217799_x_at	UBE2H	7328	-1.18	-2.27	2.33E-05	0.0017
1566465_at	KCNK1	3775	-1.19	-2.28	0.00079	0.015
220782_x_at	KLK12	43849	-1.19	-2.28	0.00019	0.0062
228587_at	FAM83G	644815	-1.19	-2.28	6.98E-07	0.00019
230276_at	FAM49A	81553	-1.19	-2.29	0.00030	0.0082
232568_at	MGC24103	158295	-1.20	-2.30	7.95E-06	0.00086
237981_at	CMYA5	202333	-1.20	-2.30	5.64E-05	0.0029
223679_at	CTNNB1	1499	-1.20	-2.30	9.24E-05	0.0039
206504_at	CYP24A1	1591	-1.20	-2.30	0.012	0.082
203798_s_at	VSNL1	7447	-1.20	-2.30	0.00028	0.0080
238625_at	C1orf168	199920	-1.21	-2.31	4.18E-07	0.00014
1552807_a_at	SIGLEC10	89790	-1.21	-2.32	0.0072	0.060
208613_s_at	FLNB	2317	-1.21	-2.32	8.31E-07	0.00021
202436_s_at	CYP1B1	1545	-1.21	-2.32	4.34E-06	0.00059
227955_s_at	EFNA5	1946	-1.21	-2.32	2.79E-06	0.00044
226887_at	HSPA14	51182	-1.21	-2.32	1.07E-06	0.00024
242138_at	DLX1	1745	-1.21	-2.32	8.92E-06	0.00093
211219_s_at	LHX2	9355	-1.22	-2.33	5.08E-06	0.00065
1569847_at	CGNL1	84952	-1.22	-2.33	0.0012	0.020
204730_at	RIMS3	9783	-1.22	-2.34	6.29E-	0.00018

					07	
210868_s_at	ELOVL6	79071	-1.23	-2.34	2.09E-05	0.0016
202435_s_at	CYP1B1	1545	-1.23	-2.35	0.00025	0.0074
1566889_at	THADA	63892	-1.23	-2.35	7.01E-05	0.0033
212154_at	SDC2	6383	-1.23	-2.35	3.04E-06	0.00046
1553861_at	TCP11L2	255394	-1.23	-2.35	8.15E-05	0.0036
228720_at	SORCS2	57537	-1.23	-2.35	8.94E-08	0.000049
238688_at	TPM1	7168	-1.23	-2.35	3.99E-05	0.0024
221664_s_at	F11R	50848	-1.24	-2.36	2.96E-08	0.000028
221425_s_at	ISCA1	81689	-1.24	-2.36	5.82E-08	0.000037
205525_at	CALD1	800	-1.25	-2.37	5.51E-05	0.0029
1556421_at	LOC286189	286189	-1.25	-2.38	0.0043	0.044
204712_at	WIF1	11197	-1.25	-2.38	0.0095	0.071
227202_at	CNTN1	1272	-1.25	-2.38	0.0042	0.044
215034_s_at	TM4SF1	4071	-1.26	-2.39	4.29E-08	0.000033
211538_s_at	HSPA2	3306	-1.26	-2.39	5.89E-06	0.00072
233586_s_at	KLK12	43849	-1.26	-2.40	0.00026	0.0076
227950_at	UBE2H	7328	-1.26	-2.40	2.13E-06	0.00036
227209_at	CNTN1	1272	-1.26	-2.40	0.0012	0.019
209981_at	CSDC2	27254	-1.26	-2.40	6.82E-08	0.000041
220085_at	HELLS	3070	-1.27	-2.41	0.0025	0.031
217591_at	SKIL	6498	-1.27	-2.41	0.0059	0.053
214576_at	KRT36	8689	-1.27	-2.41	5.42E-08	0.000037
213793_s_at	HOMER1	9456	-1.27	-2.42	1.73E-05	0.0014
240024_at	SEC14L2	23541	-1.27	-2.42	2.40E-05	0.0017
243541_at	IL31RA	133396	-1.27	-2.42	0.00040	0.010
201110_s_at	THBS1	7057	-1.28	-2.42	0.00010	0.0042
204351_at	S100P	6286	-1.28	-2.43	0.011	0.076
241014_at	FLG-AS1	339400	-1.28	-2.43	0.0023	0.030
206004_at	TGM3	7053	-1.29	-2.44	0.00035	0.0092
218266_s_at	NCS1	23413	-1.29	-2.44	0.0015	0.023

1553505_at	A2ML1	144568	-1.29	-2.45	0.0021	0.028
208216_at	DLX4	1748	-1.29	-2.45	0.0015	0.023
228996_at	RC3H1	149041	-1.30	-2.47	3.16E-05	0.0021
236140_at	GCLM	2730	-1.31	-2.47	0.0016	0.024
209859_at	TRIM9	114088	-1.32	-2.49	1.16E-05	0.0011
208539_x_at	SPRR2B	6701	-1.32	-2.50	0.047	0.187
221416_at	PLA2G2F	64600	-1.32	-2.50	1.05E-05	0.0010
228922_at	SHF	90525	-1.33	-2.52	1.62E-05	0.0014
1554097_a_at	MIR31HG	554202	-1.33	-2.52	2.15E-10	0.0000011
236637_at	TAS2R14	50840	-1.34	-2.53	1.47E-05	0.0013
222015_at	CSNK1E	1454	-1.34	-2.53	9.27E-08	0.000049
238460_at	FAM83A	84985	-1.34	-2.54	4.65E-05	0.0026
208708_x_at	EIF5	1983	-1.35	-2.55	1.28E-07	0.000063
212915_at	PDZRN3	23024	-1.35	-2.55	2.22E-08	0.000023
213107_at	TNIK	23043	-1.35	-2.55	3.30E-07	0.00012
232914_s_at	SYTL2	54843	-1.36	-2.56	5.23E-08	0.000037
232555_at	CREB5	9586	-1.36	-2.56	1.05E-05	0.0010
215066_at	PTPRF	5792	-1.36	-2.56	7.58E-05	0.0035
215374_at	PAPOLA	10914	-1.36	-2.57	0.0033	0.037
239082_at	FZD3	7976	-1.36	-2.57	2.88E-05	0.0019
219916_s_at	RNF39	80352	-1.36	-2.57	4.87E-05	0.0027
217395_at	MT4	84560	-1.36	-2.57	1.10E-05	0.0011
216113_at	ABI2	10152	-1.37	-2.58	3.29E-05	0.0021
212478_at	RMND5A	64795	-1.37	-2.59	1.45E-06	0.00028
209772_s_at	CD24	100133941	-1.38	-2.61	5.09E-05	0.0027
225119_at	CHMP4B	128866	-1.39	-2.61	4.74E-07	0.00015
213780_at	TCHH	7062	-1.39	-2.62	0.012	0.084

232378_at	SLC5A9	200010	-1.39	-2.62	3.33E-05	0.0021
209588_at	EPHB2	2048	-1.40	-2.63	7.51E-08	0.000043
230469_at	RTKN2	219790	-1.41	-2.65	0.00011	0.0043
242329_at	CREB5 /// LOC401317	9586 /// 401317	-1.41	-2.66	2.63E-06	0.00042
219768_at	VTCN1	79679	-1.42	-2.67	3.97E-06	0.00057
227650_at	HSPA14	51182	-1.42	-2.67	9.57E-06	0.00098
241412_at	BTC	685	-1.42	-2.68	0.0022	0.029
200790_at	ODC1	4953	-1.43	-2.69	7.84E-07	0.00020
219301_s_at	CNTNAP2	26047	-1.43	-2.70	0.00014	0.0051
218980_at	FHOD3	80206	-1.44	-2.71	4.16E-07	0.00014
228653_at	SAMD5	389432	-1.44	-2.71	7.61E-06	0.00085
213385_at	CHN2	1124	-1.44	-2.71	5.74E-07	0.00017
239586_at	FAM83A	84985	-1.44	-2.72	2.54E-05	0.0018
218458_at	GMCL1	64395	-1.44	-2.72	1.66E-05	0.0014
1559827_at	LINC00960	401074	-1.45	-2.73	0.031	0.144
237905_at	KRT25	147183	-1.46	-2.75	0.017	0.101
206448_at	ZNF365	22891	-1.47	-2.76	0.00031	0.0085
239831_at	TMEM106C	79022	-1.47	-2.77	2.00E-05	0.0015
205471_s_at	DACH1	1602	-1.47	-2.77	4.42E-06	0.00060
229097_at	DIAPH3	81624	-1.47	-2.77	1.46E-05	0.0013
210335_at	RASSF9	9182	-1.47	-2.78	8.37E-07	0.00021
1569433_at	SAMD5	389432	-1.48	-2.78	0.00019	0.0061
206994_at	CST4	1472	-1.48	-2.79	2.05E-05	0.0016
206140_at	LHX2	9355	-1.48	-2.80	7.33E-05	0.0034
233520_s_at	CMYA5	202333	-1.49	-2.80	1.23E-06	0.00025
209757_s_at	MYCN	4613	-1.49	-2.82	7.24E-05	0.0034
212479_s_at	RMND5A	64795	-1.49	-2.82	6.64E-08	0.000041
228915_at	DACH1	1602	-1.49	-2.82	1.37E-	0.00026

					06	
231867_at	TENM2	57451	-1.50	-2.83	2.76E-05	0.0019
214226_at	PRSS53	339105	-1.50	-2.83	7.46E-06	0.00084
223720_at	SPINK7	84651	-1.51	-2.84	0.012	0.080
215785_s_at	CYFIP2	26999	-1.51	-2.85	6.72E-07	0.00018
202752_x_at	SLC7A8	23428	-1.52	-2.87	1.83E-07	0.000082
235789_at	KDM4B /// LOC100507022	23030 /// 100507022	-1.53	-2.89	0.00042	0.010
229909_at	B4GALNT3	283358	-1.53	-2.89	5.12E-09	0.0000084
239203_at	LSMEM1	286006	-1.53	-2.89	3.65E-05	0.0023
215123_at	LOC613037 /// NPIP1B11 /// NPIP1B3 /// NPIP1B4 /// NPIP1B5	23117 /// 440345 /// 613037 /// 728888 /// 100132247	-1.53	-2.90	0.017	0.101
205534_at	PCDH7	5099	-1.54	-2.90	0.00024	0.0073
209372_x_at	TUBB2A /// TUBB2B	7280 /// 347733	-1.54	-2.90	3.52E-07	0.00013
243478_at	CHST2	9435	-1.55	-2.93	1.33E-07	0.000064
205931_s_at	CREB5 /// LOC401317	9586 /// 401317	-1.55	-2.93	2.79E-06	0.00044
230493_at	SHISA2	387914	-1.55	-2.93	0.0016	0.024
230722_at	BNC2	54796	-1.56	-2.94	0.00033	0.0088
203130_s_at	KIF5C	3800	-1.56	-2.95	1.22E-06	0.00025
227506_at	SLC16A9	220963	-1.58	-2.98	5.73E-05	0.0029
215028_at	SEMA6A	57556	-1.58	-2.99	1.57E-05	0.0013
222354_at	F11R	50848	-1.58	-2.99	0.00014	0.0051
1552626_a_at	TMEM163	81615	-1.59	-3.01	6.28E-06	0.00075
210521_s_at	FETUB	26998	-1.59	-3.02	1.11E-05	0.0011
242062_at	SAMD8	142891	-1.60	-3.03	4.16E-08	0.000033
216092_s_at	SLC7A8	23428	-1.60	-3.04	3.10E-09	0.0000059
233814_at	EFNA5	1946	-1.61	-3.05	1.96E-06	0.00034
204750_s_at	DSC2	1824	-1.61	-3.06	2.82E-08	0.000028

1553388_at	FAM26D	221301	-1.63	-3.10	1.85E-10	0.0000011
231778_at	DLX3	1747	-1.63	-3.10	3.06E-07	0.00012
224559_at	MALAT1	378938	-1.65	-3.13	0.00054	0.012
219683_at	FZD3	7976	-1.65	-3.13	3.31E-05	0.0021
243445_at	BNC2	54796	-1.65	-3.14	9.52E-08	0.000049
219554_at	RHCG	51458	-1.65	-3.14	2.37E-06	0.00038
223503_at	TMEM163	81615	-1.66	-3.16	9.70E-07	0.00022
205555_s_at	MSX2	4488	-1.66	-3.17	1.93E-09	0.0000047
215224_at	RPL23 /// SNORA21	9349 /// 619505	-1.67	-3.18	0.0036	0.039
1553829_at	CYP1B1-AS1	285154	-1.67	-3.18	1.76E-06	0.00031
214590_s_at	UBE2D1	7321	-1.67	-3.18	7.03E-07	0.00019
219932_at	SLC27A6	28965	-1.67	-3.18	5.21E-05	0.0028
206777_s_at	CRYBB2 /// CRYBB2P1	1415 /// 1416	-1.67	-3.19	0.0072	0.060
205290_s_at	BMP2	650	-1.68	-3.21	1.22E-07	0.000060
203231_s_at	ATXN1	6310	-1.68	-3.21	0.017	0.101
205374_at	SLN	6588	-1.69	-3.22	1.76E-05	0.0014
236651_at	KALRN	8997	-1.69	-3.23	1.07E-05	0.0010
213909_at	LRRC15	131578	-1.69	-3.23	6.65E-05	0.0032
209683_at	FAM49A	81553	-1.69	-3.23	8.94E-07	0.00022
240389_at	TRPM6	140803	-1.69	-3.24	6.59E-07	0.00018
207326_at	BTC	685	-1.71	-3.27	0.0010	0.018
235683_at	SESN3	143686	-1.72	-3.30	6.36E-07	0.00018
205676_at	CYP27B1	1594	-1.74	-3.34	0.00012	0.0046
208250_s_at	DMBT1	1755	-1.74	-3.34	4.00E-08	0.000033
210311_at	FGF5	2250	-1.75	-3.35	4.11E-08	0.000033
231858_x_at	AP5B1	91056	-1.77	-3.40	0.00045	0.011
225809_at	PARM1	25849	-1.77	-3.41	6.68E-06	0.00078

206912_at	FOXE1	2304	-1.79	-3.45	2.12E-05	0.0016
223739_at	PADI1	29943	-1.79	-3.46	3.80E-05	0.0023
208290_s_at	EIF5	1983	-1.79	-3.46	5.29E-08	0.000037
1558687_a_at	FOXN1	8456	-1.79	-3.46	1.35E-06	0.00026
206604_at	OVOL1	5017	-1.79	-3.46	2.39E-10	0.0000011
202884_s_at	PPP2R1B	5519	-1.80	-3.48	9.41E-09	0.000012
1554592_a_at	SLC1A6	6511	-1.80	-3.48	3.26E-07	0.00012
220090_at	CRNN	49860	-1.81	-3.51	2.68E-05	0.0019
230740_at	EHD3	30845	-1.85	-3.62	1.48E-07	0.000069
1554593_s_at	SLC1A6	6511	-1.86	-3.62	6.56E-05	0.0032
221962_s_at	UBE2H	7328	-1.86	-3.63	7.89E-11	0.0000007
211357_s_at	ALDOB	229	-1.87	-3.65	0.0011	0.018
209343_at	EFHD1	80303	-1.87	-3.65	8.62E-09	0.000012
238568_s_at	NPC1	4864	-1.88	-3.69	6.62E-07	0.00018
206935_at	PCDH8	5100	-1.89	-3.70	0.00021	0.0066
232682_at	MREG	55686	-1.89	-3.71	1.39E-09	0.0000039
209800_at	KRT16	3868	-1.91	-3.76	1.53E-06	0.00029
239412_at	IRF5	3663	-1.91	-3.77	0.0068	0.058
228975_at	SP6	80320	-1.91	-3.77	4.65E-08	0.000034
231461_at	KRT71	112802	-1.91	-3.77	0.020	0.111
218935_at	EHD3	30845	-1.92	-3.79	1.54E-06	0.00029
238789_at	KANK1	23189	-1.94	-3.83	2.42E-05	0.0017
207367_at	ATP12A	479	-1.95	-3.86	0.013	0.088
242321_at	PTPN14	5784	-1.97	-3.93	0.0076	0.062
219659_at	ATP8A2	51761	-1.98	-3.94	8.20E-07	0.00021
205595_at	DSG3	1830	-1.98	-3.96	9.54E-07	0.00022
203413_at	NELL2	4753	-1.99	-3.97	5.75E-06	0.00071

206089_at	NELL1	4745	-1.99	-3.97	0.0028	0.033
209617_s_at	CTNND2	1501	-1.99	-3.98	1.42E-05	0.0013
210319_x_at	MSX2	4488	-2.00	-4.00	4.00E-06	0.00057
212531_at	LCN2	3934	-2.03	-4.08	0.016	0.098
213774_s_at	PPP1R2	5504	-2.03	-4.08	1.19E-09	0.0000036
202376_at	SERPINA3	12	-2.05	-4.15	0.00026	0.0076
228646_at	PPP1R1C	151242	-2.07	-4.21	4.77E-09	0.0000084
233123_at	SLC40A1	30061	-2.10	-4.30	1.16E-06	0.00025
1553537_at	KRT73	319101	-2.12	-4.34	3.02E-08	0.000028
210082_at	ABCA4	24	-2.12	-4.36	6.07E-09	0.0000095
209618_at	CTNND2	1501	-2.13	-4.39	0.00053	0.012
221627_at	TRIM10	10107	-2.14	-4.40	0.0026	0.032
224262_at	IL1F10	84639	-2.16	-4.47	4.43E-06	0.00060
202886_s_at	PPP2R1B	5519	-2.17	-4.49	6.58E-06	0.00077
211485_s_at	FGF18	8817	-2.20	-4.58	1.95E-08	0.000021
207065_at	KRT75	9119	-2.20	-4.61	4.54E-07	0.00015
206224_at	CST1	1469	-2.21	-4.62	2.83E-05	0.0019
204687_at	PARM1	25849	-2.22	-4.64	1.06E-09	0.0000035
224412_s_at	TRPM6	140803	-2.23	-4.71	0.00011	0.0043
203921_at	CHST2	9435	-2.25	-4.77	1.92E-06	0.00033
232887_at	PIRT	644139	-2.28	-4.85	6.25E-06	0.00075
229030_at	CAPN8	388743	-2.29	-4.90	3.13E-05	0.0020
240388_at	KRT27	342574	-2.36	-5.12	0.0049	0.047
205724_at	PKP1	5317	-2.37	-5.17	5.71E-10	0.0000023
202833_s_at	SERPINA1	5265	-2.38	-5.21	1.33E-06	0.00026
229158_at	WNK4	65266	-2.39	-5.23	1.08E-06	0.00024
207147_at	DLX2	1746	-2.39	-5.24	2.94E-05	0.0020
222351_at	PPP2R1B	5519	-2.39	-5.24	6.23E-	0.0031

					05	
217678_at	SLC7A11	23657	-2.44	-5.41	9.14E-08	0.000049
206423_at	ANGPTL7	10218	-2.44	-5.43	0.0020	0.027
241985_at	JMY	133746	-2.45	-5.45	4.54E-07	0.00015
209921_at	SLC7A11	23657	-2.52	-5.73	4.44E-07	0.00015
207716_at	KRT38	8687	-2.53	-5.78	0.016	0.100
220256_s_at	OXCT2	64064	-2.54	-5.81	1.67E-11	0.0000005
229823_at	RIMS2	9699	-2.55	-5.84	8.28E-06	0.00088
1564435_a_at	KRT72	140807	-2.56	-5.89	9.25E-06	0.00095
227763_at	LYPD6	130574	-2.61	-6.10	7.61E-09	0.000011
237732_at	PRR9	574414	-2.62	-6.14	0.0012	0.019
239572_at	GJA3	2700	-2.63	-6.17	7.25E-07	0.00019
228705_at	CAPN12	147968	-2.63	-6.19	5.54E-08	0.000037
211429_s_at	SERPINA1	5265	-2.65	-6.27	6.52E-07	0.00018
227764_at	LYPD6	130574	-2.65	-6.28	0.00011	0.0043
202166_s_at	PPP1R2	5504	-2.70	-6.51	1.39E-10	0.0000010
219832_s_at	HOXC13	3229	-2.72	-6.59	4.40E-08	0.000033
231583_at	KRT74	121391	-2.74	-6.68	0.00025	0.0074
205289_at	BMP2	650	-2.81	-7.02	7.98E-07	0.00020
206987_x_at	FGF18	8817	-2.89	-7.43	1.60E-09	0.0000041
203304_at	BAMBI	25805	-2.95	-7.72	2.00E-07	0.000087
1554398_at	LYG2	254773	-2.98	-7.87	2.89E-07	0.00011
214517_at	KRTAP5-9	3846	-3.04	-8.24	4.46E-06	0.00060
231382_at	FGF18	8817	-3.09	-8.54	9.86E-09	0.000012
211029_x_at	FGF18	8817	-3.10	-8.60	8.63E-09	0.000012
204720_s_at	DNAJC6	9829	-3.22	-9.29	5.33E-07	0.00016
208092_s_at	FAM49A	81553	-3.26	-9.59	4.38E-11	0.0000005

205713_s_at	COMP	1311	-3.34	-10.15	3.35E-08	0.000030
214284_s_at	FGF18	8817	-3.44	-10.83	7.74E-08	0.000044
242301_at	CBLN2	147381	-3.46	-11.00	0.0033	0.037
237507_at	KRT73	319101	-3.47	-11.12	2.26E-05	0.0017
230720_at	RNF182	221687	-3.57	-11.84	1.00E-07	0.000051
1562629_a_at	KRT40	125115	-3.59	-12.08	7.33E-06	0.00084
220635_at	PSORS1C2	170680	-3.71	-13.06	1.67E-06	0.00030
229730_at	SMTNL2	342527	-3.73	-13.26	4.09E-11	0.0000005
220779_at	PADI3	51702	-3.82	-14.09	4.12E-06	0.00057
237853_x_at	KRTAP10-12	386685	-3.95	-15.49	4.82E-07	0.00015
206027_at	S100A3	6274	-4.35	-20.39	3.94E-06	0.00057
233158_at	KRT82	3888	-4.46	-21.94	2.40E-05	0.0017
240967_at	KRTAP19-3	337970	-4.46	-22.02	0.00062	0.013
234685_x_at	KRTAP4-9	100132386	-4.79	-27.76	0.0049	0.047
1556410_a_at	KRTAP19-1	337882	-4.82	-28.18	0.0016	0.023
207670_at	KRT85	3891	-4.87	-29.22	0.00039	0.0097
206677_at	KRT31	3881	-4.93	-30.42	0.00029	0.0081
1564960_at	KRTAP7-1	337878	-4.95	-30.96	0.00016	0.0055
233631_x_at	KRTAP9-2 /// KRTAP9-8 /// LOC100996762	83899 /// 83901 /// 100996762	-4.96	-31.03	0.0043	0.044
219270_at	CHAC1	79094	-4.98	-31.67	3.62E-07	0.00013
207146_at	KRT32	3882	-4.99	-31.69	1.08E-05	0.0011
215189_at	KRT86 /// LOC100509764	3892 /// 100509764	-4.99	-31.74	0.00080	0.015
208532_x_at	KRTAP5-8	57830	-5.07	-33.67	2.97E-05	0.0020
1564921_at	KRTAP13-1	140258	-5.13	-35.05	2.34E-06	0.00038
1560897_a_at	KRTAP10-11	386678	-5.23	-37.52	7.34E-06	0.00084
216921_s_at	KRT35	3886	-5.26	-38.40	0.00032	0.0086
234680_at	KRTAP17-1	83902	-5.32	-40.00	5.46E-05	0.0029
234639_x_at	KRTAP9-8	83901	-5.45	-43.82	0.0025	0.031

234631_at	KRTAP4-8	728224	-5.60	-48.59	0.00054	0.012
216810_at	KRTAP4-7	100132476	-5.64	-49.83	0.0027	0.033
233640_x_at	KRTAP9-4	85280	-5.65	-50.26	0.0014	0.022
234678_at	KRTAP4-3	85290	-5.66	-50.66	0.0012	0.019
207669_at	KRT83	3889	-5.76	-54.31	5.03E-09	0.0000084
220970_s_at	KRTAP2-3 /// KRTAP2-4	85294 /// 730755	-5.82	-56.31	0.0017	0.025
234633_at	KRTAP4-11	653240	-5.83	-56.87	0.00015	0.0054
1561330_at	DSG4	147409	-5.86	-58.04	2.04E-07	0.000088
206969_at	KRT34 /// LOC100653049	3885 /// 100653049	-5.91	-60.19	0.00075	0.015
1564803_at	KRTAP11-1	337880	-5.99	-63.49	0.00080	0.015
233534_at	KRTAP3-2	83897	-6.02	-65.09	0.0011	0.018
233681_at	KRTAP3-3	85293	-6.06	-66.92	0.0015	0.022
234679_at	KRTAP9-3	83900	-6.08	-67.64	0.00046	0.011
207457_s_at	LY6G6D	58530	-6.10	-68.67	2.62E-05	0.0018
234772_s_at	KRTAP2-1 /// KRTAP2-2	81872 /// 728279	-6.11	-68.95	0.00081	0.015
213711_at	KRT81	3887	-6.11	-69.15	4.05E-06	0.00057
220978_at	KRTAP1-3	81850	-6.13	-69.81	0.00081	0.015
208483_x_at	KRT33A	3883	-6.21	-74.24	0.00013	0.0049
234635_at	KRTAP4-1	85285	-6.26	-76.87	0.00069	0.014
234691_at	KRTAP2-1	81872	-6.27	-77.41	0.00057	0.012
233537_at	KRTAP3-1	83896	-6.28	-77.82	0.00021	0.0065
233533_at	KRTAP1-5	83895	-6.36	-82.27	0.00078	0.015
234683_at	KRTAP4-11 /// KRTAP4-6 /// LOC100134267	81871 /// 653240 /// 100134267	-6.40	-84.49	0.0013	0.021
220976_s_at	KRTAP1-1	81851	-6.43	-86.49	0.00046	0.011
224269_at	KRTAP4-12	83755	-6.44	-86.95	0.00079	0.015
234637_at	KRTAP4-5	85289	-6.45	-87.69	0.00029	0.0081
234684_s_at	KRTAP4-4	84616	-6.52	-91.90	0.00080	0.015
221297_at	GPRC5D	55507	-6.53	-92.51	8.01E-06	0.00086
1555673_at	KRTAP2-3 /// KRTAP2-4	85294 /// 730755	-6.66	-	0.00012	0.0047
207787_at	KRT33B	3884	-6.70	103.74	0.00032	0.0087
234671_at	KRTAP4-2	85291	-6.76	108.60	0.00045	0.011
234880_x_at	KRTAP1-3	81850	-6.82	-	1.86E-05	0.0015

220972_s_at	KRTAP9-9	81870	-6.96	- 124.57	0.00013	0.0049
1564974_at	KRTAP8-1	337879	-7.04	- 131.84	0.00016	0.0056

Supplemental References

1. Dennis G, Sherman BT, Hosack DA, et al. DAVID: Database for Annotation, Visualization, and Integrated Discovery. *Genome Biol* 2003;4(5):P3.
2. Stein CK, Qu P, Epstein J, et al. Removing batch effects from purified plasma cell gene expression microarrays with modified ComBat. *BMC Bioinformatics* 2015;16(1):63.
3. Xing L, Dai Z, Jabbari A, et al. Alopecia areata is driven by cytotoxic T lymphocytes and is reversed by JAK inhibition. *Nat Med* 2014;20(9):1043–9.
4. Ritchie ME, Phipson B, Wu D, et al. limma powers differential expression analyses for RNA-sequencing and microarray studies. *Nucleic Acids Res* 2015;43(7):e47–7.