

Supplementary Table 1: MSCCR demographics by Omics datatype						
	Biopsy Transcriptome			Blood Transcriptome		
MSCCR Cohort Demographics	Biopsy.Control	Biopsy.CD	Biopsy.UC	Blood.Control	Blood.CD	Blood.UC
<b>Number of individuals</b>	243	498	421	209	432	389
<b>Age at Endoscopy (years, mean (SD))</b>	52.70 (12.00)	41.64 (14.48)	45.63 (15.55)	52.63 (12.35)	41.69 (14.51)	45.72 (15.81)
<b>Demographics:</b>						
<b>Gender = Female (N, %)</b>	116 (47.7)	231 (46.4)	209 (49.6)	96 (45.9)	205 (47.5)	187 (48.1)
<b>Continental Ancestry N(%)</b>						
AFR	48 (19.9)	23 (4.6)	17 (4.1)	40 (19.3)	20 (4.6)	14 (3.6)
AMI	47 (19.5)	41 (8.2)	32 (7.6)	43 (20.8)	36 (8.3)	26 (6.7)
EAS	8 (3.3)	8 (1.6)	14 (3.3)	7 (3.4)	7 (1.6)	13 (3.3)
EUR	133 (55.2)	418 (83.9)	345 (82.3)	113 (54.6)	362 (83.8)	325 (83.5)
Other	5 (2.1)	8 (1.6)	11 (2.6)	4 (1.9)	7 (1.6)	11 (2.8)
<b>Ashkenazi Jewish ancestry N(%)</b>						
Not AJ	213 (87.7)	310 (62.2)	266 (63.2)	188 (90.0)	273 (63.2)	246 (63.2)
Full AJ	1 (0.4)	4 (0.8)	2 (0.5)	1 (0.5)	4 (0.9)	2 (0.5)
Partial AJ	29 (11.9)	184 (36.9)	153 (36.3)	20 (9.6)	155 (35.9)	141 (36.2)
<b>Smoking, N(%)</b>	24 (9.9)	22 (4.4)	11 (2.6)	19 (9.1)	23 (5.3)	10 (2.6)
<b>IBD related outcomes:</b>						
<b>Age at IBD Diagnosis (years, mean (SD))</b>	NaN (NA)	26.71 (12.71)	30.04 (14.07)	NaN (NA)	26.23 (12.81)	30.13 (14.32)
<b>Disease Duration (years, mean (SD))</b>	0.00 (0.00)	15.34 (12.89)	15.60 (12.55)	0.00 (0.00)	15.75 (13.03)	15.61 (12.70)
<b>Disease_Duration_Categoric (%)</b>						
Early	0 (NaN)	60 (12.0)	32 (7.6)	0 (NaN)	55 (12.7)	61 (15.7)
Middle	0 (NaN)	63 (12.7)	68 (16.2)	0 (NaN)	327 (75.7)	296 (76.1)
Late	0 (NaN)	375 (75.3)	321 (76.2)	0 (NaN)	50 (11.6)	32 (8.2)
<b>Endoscopically defined IBD activity, SESCD and Mayo endo, N(%)</b>						
Inactive	0 (NaN)	153 (30.7)	187 (44.7)	0 (NaN)	133 (30.8)	173 (44.7)
Mild	0 (NaN)	173 (34.7)	137 (32.8)	0 (NaN)	144 (33.3)	130 (33.6)
Moderate	0 (NaN)	125 (25.1)	59 (14.1)	0 (NaN)	113 (26.2)	54 (14.0)
Severe	0 (NaN)	47 (9.4)	35 (8.4)	0 (NaN)	42 (9.7)	30 (7.8)

<b>Total UC Mayo Endo Score (mean (SD))</b>	NaN (NA)	NaN (NA)	0.86 (0.95)	NaN (NA)	NaN (NA)	0.85 (0.94)
<b>Total SESCD (mean (SD))</b>	NaN (NA)	6.24 (6.93)	NaN (NA)	NaN (NA)	6.36 (7.10)	NaN (NA)
<b>Clinically defined IBD activity HBI and SCCAI N = Active (%)</b>	0 ( NaN)	78 (19.0)	57 (13.5)	0 ( NaN)	71 (19.8)	49 (12.6)
<b>Any autoimmune disease , N(%)</b>	13 ( 5.3)	59 (11.8)	36 ( 8.6)	13 ( 6.2)	53 (12.3)	34 ( 8.7)
Psoriasis = Yes (%)	6 ( 2.5)	29 ( 5.8)	22 ( 5.2)	5 ( 2.4)	24 ( 5.6)	22 ( 5.7)
Rheumatoid arthritis = Yes (%)	7 ( 2.9)	23 ( 4.6)	9 ( 2.1)	8 ( 3.8)	22 ( 5.1)	8 ( 2.1)
Ankylosing spondylitis = Yes (%)	0 ( 0.0)	10 ( 2.0)	3 ( 0.7)	0 ( 0.0)	10 ( 2.3)	3 ( 0.8)
<b>Medication Use**:</b>						
<b>ASA_5_Medication_Cat = Yes (%)</b>	0 ( NaN)	150 (30.1)	274 (65.1)	0 ( NaN)	125 (28.9)	255 (65.6)
Azulfidine, N(%)	0 ( NaN)	28 ( 5.6)	40 ( 9.5)	0 ( NaN)	23 ( 5.3)	37 ( 9.5)
5-ASA oral, N(%)	0 ( NaN)	126 (25.3)	239 (56.8)	0 ( NaN)	105 (24.3)	221 (56.8)
5-ASA rectal, N(%)	0 ( NaN)	9 ( 1.8)	74 (17.6)	0 ( NaN)	10 ( 2.3)	69 (17.7)
<b>Steroids Meds (Combined), N(%)</b>	0 ( NaN)	58 (11.6)	79 (18.8)	0 ( NaN)	52 (12.0)	71 (18.3)
Entocort, N(%)	0 ( NaN)	17 ( 3.4)	17 ( 4.0)	0 ( NaN)	15 ( 3.5)	13 ( 3.3)
Rectal steroids, N(%)	0 ( NaN)	12 ( 2.4)	49 (11.6)	0 ( NaN)	10 ( 2.3)	44 (11.3)
Corticosteroids, N(%)	0 ( NaN)	31 ( 6.2)	31 ( 7.4)	0 ( NaN)	28 ( 6.5)	28 ( 7.2)
<b>Antibiotics Meds, N(%)</b>	0 ( NaN)	51 (10.2)	8 ( 1.9)	0 ( NaN)	48 (11.1)	6 ( 1.5)
<b>Anti-Integrin Meds, N(%)</b>	0 ( NaN)	28 ( 5.6)	18 ( 4.3)	0 ( NaN)	25 ( 5.8)	20 ( 5.1)
Entyvio, N(%)	0 ( NaN)	26 ( 5.2)	18 ( 4.3)	0 ( NaN)	23 ( 5.3)	20 ( 5.1)
Tysabri, N(%)	0 ( NaN)	2 ( 0.4)	0 ( 0.0)	0 ( NaN)	2 ( 0.5)	0 ( 0.0)
<b>AntiTNFa Meds (Rem/Hum), N(%)</b>	0 ( NaN)	168 (33.7)	87 (20.7)	0 ( NaN)	156 (36.1)	78 (20.1)
Remicade, N(%)	0 ( NaN)	82 (16.5)	60 (14.3)	0 ( NaN)	72 (16.7)	54 (13.9)
Humira, N(%)	0 ( NaN)	87 (17.5)	29 ( 6.9)	0 ( NaN)	85 (19.7)	26 ( 6.7)
Cimzia, N(%)	0 ( NaN)	32 ( 6.4)	2 ( 0.5)	0 ( NaN)	24 ( 5.6)	3 ( 0.8)
<b>Thiopurines, N(%)</b>	0 ( NaN)	156 (31.3)	137 (32.5)	0 ( NaN)	134 (31.0)	125 (32.1)
<b># of biopsies by region:</b>						
Rectum						
Non-inflamed	225 (48.8)	252 (21.8)	167 (19.2)	NaN (NA)	NaN (NA)	NaN (NA)
Inflamed	0 ( 0.0)	116 (10.0)	144 (16.5)	NaN (NA)	NaN (NA)	NaN (NA)
Colon (Anything but rectum)						
Non-inflamed	115 (24.9)	285 (24.6)	224 (25.7)	NaN (NA)	NaN (NA)	NaN (NA)

Inflamed	0 ( 0.0)	141 (12.2)	149 (17.1)	NaN (NA)	NaN (NA)	NaN (NA)
Ileum						
Non-inflamed	121 (26.2)	201 (17.4)	188 (21.6)	NaN (NA)	NaN (NA)	NaN (NA)
Inflamed	0 ( 0.0)	162 (14.0)	0 ( 0.0)	NaN (NA)	NaN (NA)	NaN (NA)
<b>IBD_EndoSeverity_4levels, # of biopsies (%)</b>						
Inactive	0 ( NaN)	347 (30.0)	337 (38.9)	NaN (NA)	NaN (NA)	NaN (NA)
Mild	0 ( NaN)	398 (34.4)	315 (36.3)	NaN (NA)	NaN (NA)	NaN (NA)
Moderate	0 ( NaN)	294 (25.4)	143 (16.5)	NaN (NA)	NaN (NA)	NaN (NA)
Severe	0 ( NaN)	118 (10.2)	72 ( 8.3)	NaN (NA)	NaN (NA)	NaN (NA)
<b>IBD_ClinicianMeasure_Inactive_Active = Active, # of biopsies (%)</b>	0 ( NaN)	179 (18.6)	126 (14.4)	NaN (NA)	NaN (NA)	NaN (NA)
<b>Max_Nancy, # of biopsies (%)</b>						
0	90 (90.9)	NaN (NA)	209 (46.7)	NaN (NA)	NaN (NA)	NaN (NA)
1	2 ( 2.0)	NaN (NA)	17 ( 3.8)	NaN (NA)	NaN (NA)	NaN (NA)
2	7 ( 7.1)	NaN (NA)	159 (35.5)	NaN (NA)	NaN (NA)	NaN (NA)
3	0 ( 0.0)	NaN (NA)	45 (10.0)	NaN (NA)	NaN (NA)	NaN (NA)
4	0 ( 0.0)	NaN (NA)	18 ( 4.0)	NaN (NA)	NaN (NA)	NaN (NA)
<b>Max_GHAS, # of biopsies(%)</b>						
0	77 (77.8)	310 (36.5)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
1	11 (11.1)	97 (11.4)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
2	2 ( 2.0)	74 ( 8.7)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
3	2 ( 2.0)	76 ( 9.0)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
4	4 ( 4.0)	59 ( 6.9)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
5	3 ( 3.0)	47 ( 5.5)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
6	0 ( 0.0)	68 ( 8.0)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
7	0 ( 0.0)	58 ( 6.8)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
8	0 ( 0.0)	23 ( 2.7)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
9	0 ( 0.0)	18 ( 2.1)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
10	0 ( 0.0)	19 ( 2.2)	NaN (NA)	NaN (NA)	NaN (NA)	NaN (NA)
** Self-reported medication use was not collected from control patients (NA)						
** note : 29 biopsies are from Pouch patients ( total unique Pouch patients is: 18 patients), these were removed for most analysis						

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<b>Supplementary Table 2: RTP demographics</b>			
	<b>Overall</b>	<b>Control</b>	<b>IBD</b>
N	167	32	135
Age at consent (years, mean (SD))	33.22 (15.48)	27.75 (14.96)	34.52 (15.36)
Gender = Male (%)	82 (49.1)	14 (43.8)	68 (50.4)
IBD disease (%)			
Control	32 (19.2)	32 (100.0)	0 (0.0)
CD	97 (58.1)	0 (0.0)	97 (71.9)
UC	23 (13.8)	0 (0.0)	23 (17.0)
IBDU	15 (9.0)	0 (0.0)	15 (11.1)
Race (%)			
White	163 (97.6)	32 (100.0)	131 (97.0)
Black	2 (1.2)	0 (0.0)	2 (1.5)
Unknown	2 (1.2)	0 (0.0)	2 (1.5)
Jewish (%)			
Yes, Ashkenazi	150 (89.8)	32 (100.0)	118 (87.4)
Yes, Sephardic	7 (4.2)	0 (0.0)	7 (5.2)
No	8 (4.8)	0 (0.0)	8 (5.9)
Unknown	2 (1.2)	0 (0.0)	2 (1.5)
Height (mean (SD))	64.83 (4.87)	62.74 (5.03)	65.30 (4.73)
Weight (mean (SD))	148.08 (40.77)	124.62 (33.13)	153.29 (40.61)
BMI (mean (SD))	24.61 (6.19)	22.02 (4.07)	25.19 (6.44)
Ever antibiotics = Yes (%)	22 (16.5)	1 (4.3)	21 (19.1)
Number of bowel movement (mean (SD))	2.58 (2.73)	1.32 (0.48)	2.83 (2.92)
Liquid stool = Yes (%)	36 (27.1)	1 (4.5)	35 (31.5)
Blood stool			
1	110 (82.7)	22 (100.0)	88 (79.3)
2	20 (15.0)	0 (0.0)	20 (18.0)
3	3 (2.3)	0 (0.0)	3 (2.7)

Abdominal pain = Yes (%)	27 (20.0)	2 ( 9.1)	25 ( 22.1)
Abdominal pain rate (mean (SD))	4.41 (2.41)	1.50 (0.71)	4.64 (2.34)
Diagnosis duration (mean (SD))	NaN (NA)	NaN (NA)	12.23 (10.28)
Diagnosis location(%)			
L1	26 (34.2)	0 ( NaN)	26 ( 34.2)
L1L4b	1 ( 1.3)	0 ( NaN)	1 ( 1.3)
L2	9 (11.8)	0 ( NaN)	9 ( 11.8)
L3	37 (48.7)	0 ( NaN)	37 ( 48.7)
L3L4a	2 ( 2.6)	0 ( NaN)	2 ( 2.6)
L4aL4b	1 ( 1.3)	0 ( NaN)	1 ( 1.3)
Diagnosis behavior (%)			
B1	38 (55.9)	0 ( NaN)	38 ( 55.9)
B2	14 (20.6)	0 ( NaN)	14 ( 20.6)
B2B3	7 (10.3)	0 ( NaN)	7 ( 10.3)
B3	9 (13.2)	0 ( NaN)	9 ( 13.2)
Diagnosis perianal = Yes (%)	16 ( 9.6)	0 ( 0.0)	16 ( 11.9)
Diagnosis extent(%)			
E1	2 (13.3)	0 ( NaN)	2 ( 13.3)
E2	6 (40.0)	0 ( NaN)	6 ( 40.0)
E3	2 (13.3)	0 ( NaN)	2 ( 13.3)
E4	5 (33.3)	0 ( NaN)	5 ( 33.3)

<b>Supplementary Table 3: RISK demographics</b>				
	<b>Overall</b>	<b>Control</b>	<b>non inflamed CD</b>	<b>inflamed CD</b>
N	260	42	55	163
Age at diagnosis (years, mean (SD))	11.83 (3.08)	11.08 (3.10)	12.27 (3.08)	11.88 (3.07)
Sex = Male (N, %)	152 ( 58.5)	26 ( 61.9)	30 ( 54.5)	96 ( 58.9)
Deep Ulcers (%)				
Yes	76 ( 29.2)	0 ( 0.0)	0 ( 0.0)	76 ( 46.6)
No	142 ( 54.6)	0 ( 0.0)	55 (100.0)	87 ( 53.4)
NA	42 ( 16.2)	42 (100.0)	0 ( 0.0)	0 ( 0.0)
Histopathology (%)				
Macroscopic inflammation	162 ( 62.3)	0 ( 0.0)	0 ( 0.0)	162 ( 99.4)
Microscopic inflammation	29 ( 11.2)	0 ( 0.0)	28 ( 50.9)	1 ( 0.6)
Normal	24 ( 9.2)	0 ( 0.0)	24 ( 43.6)	0 ( 0.0)
Undetermined	3 ( 1.2)	0 ( 0.0)	3 ( 5.5)	0 ( 0.0)
NA	42 ( 16.2)	42 (100.0)	0 ( 0.0)	0 ( 0.0)

Supplementary Table 4: Genesets comprising the various molecular inflammation scores:									
Geneset	cirMIS_CD	cirMIS_CD	cirMIS_UC	cirMIS_UC	cirMIS_IBD	cirMIS_IBD	bMIS_CD	bMIS_UC	bMIS_IBD
Description	up (FCH 1.0165 FDR 0.05)	down (FCH 1.0165 FDR 0.05)	up (FCH 1.089 FDR 0.05)	down (FCH 1.089 FDR 0.05)	up (FCH 1.0147 FDR 0.05)	down (FCH 1.0147 FDR 0.05)	lvsNonI.CD (FCH 2 FDR 0.05 )	lvsNonI.UC (FCH 2 FDR 0.05 )	lvsNonI.IBD (FCH 2 FDR 0.05 )
# genes	95	8	82	8	90	9	229	498	317
	ADM	CACNB4	ADM	CACNB4	ADM	CACNB4	GRIN2D	GRIN2D	GRIN2D
	INSC	AC009226.1	INSC	AC009226.1	INSC	AC009226.1	CALHM6	EBF3	MDFI
	AC073172.2	GRAMD1C	AC073172.2	GRAMD1C	AC073172.2	GTSCR1	MDFI	MDFI	MUC5AC
	AC073172.1	VPS26AP1	AC073172.1	VPS26AP1	AC073172.1	GRAMD1C	MUC5AC	MUC5AC	GSDMC
	MMP8	LINC02288	AC004917.1	LINC02288	MMP8	VPS26AP1	GSDMC	GSDMC	SIX1
	AC004917.1	LINC02289	MGAM2	LINC02289	AC004917.1	LINC02288	SIX1	SIX1	SAA2
	MGAM2	SDC2	MOXD2P	SDC2	MGAM2	LINC02289	SAA2	SAA2	KRT16
	MOXD2P	CXCL8	TAS2R39	CXCL8	MOXD2P	SDC2	KRT16	ICAM1	CD274
	TAS2R39		AOC1		TAS2R39	CXCL8	LY6D	ANK1	SLC7A5
	TAS2R40		CAPN13		AOC1		PGC	KRT16	LY6D
	AOC1		GALNT14		CAPN13		KRT17	CD274	PGC
	CAPN13		AC009305.1		GALNT14		SAA1	SLC7A5	KRT17
	GALNT14		DYSF		AC009305.1		VSIG1	LY6D	SAA1
	AC009305.1		SDR42E1P5		DYSF		SMIM25	CA9	VSIG1
	DYSF		SLC9A4		SDR42E1P5		CCL2	KRT17	SERPINB5
	SDR42E1P5		SOCS3		SLC9A4		CCL7	SAA1	RND1
	SLC9A4		KREMEN1		TNFAIP6		IL6	MEOX1	SMIM25
	TNFAIP6		AL021393.1		KCNH7		CCL11	GAL	AC034199.1
	KCNH7		OSM		SOCS3		STC1	VSIG1	HABP2
	SOCS3		ALPL		AC061992.1		SERPINB4	CTHRC1	PIM2
	AC061992.1		AC244453.3		KREMEN1		CSNK1A1L	SERPINB5	IL6
	KREMEN1		AC244453.2		AL021393.1		FAP	ATP5MC1P6	CCL11
	AL021393.1		FCGR1B		OSM		OSM	RND1	STC1
	OSM		AC239798.2		ALPL		TFAP2C	SMIM25	SERPINB4



	ALPL		FCGR1A		AC244453.3		LINC00473	LINC01270	CSNK1A1L
	AC244453.3		AC243772.2		AC244453.2		IGKV3-15	IL2RA	FAP
	AC244453.2		S100A12		FCGR1B		IGKV3-20	AC034199.1	GABRP
	FCGR1B		F5		AC239798.2		TFPI2	NPTX2	IGLV1-51
	AC239798.2		CACNA1E		FCGR1A		DCSTAMP	HABP2	IGLV9-49
	FCGR1A		TLR5		AC243772.2		CEACAM4	IGLV6-57	OSM
	AC243772.2		OLFM4		S100A12		LINC02577	PIM2	TFAP2C
	S100A12		CNGB1		S100A8		LCN2	IL6	IGLV1-44
	S100A8		HP		F5		SERPINB7	CASP5	IGLV1-40
	F5		SLC26A8		CACNA1E		LBP	CCL11	SERPINB3
	CACNA1E		NR2E1		AL137789.1		IGHV4OR15-8	STC1	PDE10A
	AL137789.1		ADGB		TLR5		SLC11A1	SERPINB4	LINC00473
	TLR5		ANOS1		DSC2		MYEOV	CSNK1A1L	MRPS31P2
	DSC2		BMX		OLFM4		IGKV2D-29	FAP	AC017002.1
	OLFM4		ACE2		CNGB1		C6orf223	GABRP	LINC01303
	CNGB1		AL008707.1		HP		AQP9	NOTUM	IGKV1-5
	HP		FGF13		SLC26A8		C4orf50	IGLV1-51	IGKV1-9
	SLC26A8		PROK2		NR2E1		ALDH1A2	IGLV9-49	IGKV3-11
	NR2E1		CLRN1-AS1		ADGB		IL1A	AC099509.1	IGKV3-15
	ADGB		AC020636.2		ANOS1		IGKV3D-15	TPTE2	IGKV3-20
	ANOS1		AC020636.1		BMX		AP005233.2	IGLV1-47	TFPI2
	BMX		CLRN1		ACE2		IL1B	ALDOB	DCSTAMP
	ACE2		ZDHHC19		AL008707.1		CMTM2	OSM	CASP1P2
	AL008707.1		CLEC4D		FGF13		NPSR1	TFAP2C	CEACAM4
	FGF13		GPR84		PROK2		CDH3	IGLV1-44	LINC02577
	PROK2		RPH3A		CLRN1-AS1		FPR1	IGLV1-40	CLDN2
	CLRN1-AS1		TDRD9		AC020636.2		FOXQ1	IGLV1-36	LCN2
	AC020636.2		RD3L		AC020636.1		AC005515.1	SERPINB3	IGKV1-39
	AC020636.1		IGHA2		CLRN1		FPR2	PDE10A	SERPINB7
	CLRN1		CST7		ZDHHC19		ABCA12	LINC00473	LBP
	ZDHHC19		MMP9		AL354877.1		SPATA20P1	MRPS31P2	DSG3

	AL354877.1		AC087672.2		CLEC4D		FIBIN	AC017002.3	IGLV3-21
	CLEC4D		SPATC1		GPR84		KCNJ15	RPS14P4	IGKV2D-40
	GPR84		SMPD5		RPH3A		EGFL6	AC017002.1	IGHV4OR15-8
	RPH3A		OPLAH		TDRD9		CHRD2	LINC01303	SLC11A1
	TDRD9		UCHL1		RD3L		IL1RN	IGKV1-5	RNF183
	RD3L		ANXA3		IGHA2		IL13RA2	IGKV1-9	PADI4
	RN7SL634P		RF00019		CST7		KYNU	IGKV3-11	MYEOV
	IGHA2		NDST3		MMP9		IL11	IGKV1-12	HAS1
	AC066616.1		ACSL1		AC087672.2		SPINK4	IGKV3-15	C6orf223
	CST7		LINC01093		SPATC1		LINC01484	IGKV3-20	AQP9
	MMP9		PFKFB3		SMPD5		LPL	IGLV3-27	C4orf50
	AC087672.2		SDCBPP1		OPLAH		JSRP1	TFPI2	SOCS1
	SPATC1		OLAH		UCHL1		VNN3	GRHL1	ALDH1A2
	SMPD5		DUSP13		ANXA3		MCEMP1	DCSTAMP	IL1A
	OPLAH		LIPM		RF00019		ADGRG3	CASP1P2	AP005233.2
	ANXA3		ANKRD22		NDST3		DMBT1	IGLV3-25	IL1B
	RF00019		MCEMP1		ACSL1		AL583785.1	CEACAM4	CMTM2
	NDST3		AC005392.2		LINC01093		OLFM4	LINC02577	NPSR1
	ACSL1		CD177		PFKFB3		UCN2	ROPN1L	CDH3
	LINC01093		FCAR		SDCBPP1		C2CD4A	CLDN2	FPR1
	PFKFB3		AC245128.3		OLAH		FOLH1	LCN2	RPL7P31
	SDCBPP1		AC092336.1		DUSP13		FAM157B	IGKV1-39	NCAPD2P1
	OLAH		BASP1-AS1		LIPM		LGALS9DP	SERPINB7	FOXQ1
	DUSP13		DCAF13P2		ANKRD22		LINC01913	LBP	NPSR1-AS1
	LIPM		GCSHP1		MCEMP1		AC115522.1	PLEKHS1	FPR2
	ANKRD22		NAIP		AC005392.2		LYPD5	DSG3	ABCA12
	MCEMP1		BTNL3		CD177		NOS2	IGLV3-21	TIMP1
	FFAR3				FCAR		KRT6B	IGKV2D-40	SPATA20P1
	AC005392.2				AC245128.3		NLRP12	IGHV4OR15-8	FIBIN
	CD177				AC092336.1		MEFV	IGLV3-19	KCNJ15
	PGLYRP1				BASP1-AS1		CD300E	SLC11A1	EGFL6

	FCAR				DCAF13P2		KRT6A	RNF183	LGALS12
	AC245128.3				GCSHP1		FJX1	PADI4	AC113615.1
	AC092336.1				NAIP		DCC	IGLV3-9	CHRD2
	BASP1-AS1				BTNL3		GIP	MYEOV	IL1RN
	DCAF13P2						SLCO1B3	IFITM9P	LINC00114
	GCSHP1						HPN	KCNQ3	IL13RA2
	AC146944.2						RNF182	IGLV2-5	KYNU
	NAIP						LIPN	SERPINB2	IL11
	BTNL3						LILRA6	IGLV3-1	SPINK4
							MNDA	IGLC2	LINC01484
							SOCS3	HAS1	LPL
							IGHV6-1	C6orf223	JSRP1
							CXCR2P1	AQP9	VNN3
							CXCR2	C4orf50	CT83
							IGHV1-3	SOCS1	MCEMP1
							TREML4	ALDH1A2	ADGRG3
							IGHV3-7	IL1A	SLC4A11
							FAM83A	AP005233.2	IGFBP5
							TREM1	FER1L4	DMBT1
							IGHV3-15	IL1B	AL583785.1
							IGHV1-18	CMTM2	OLFM4
							CXCR1	NPSR1	UCN2
							IGHV3-21	CDH3	C2CD4A
							IGHV1-24	AL365226.2	FOLH1
							IGHV2-26	FPR1	FAM157B
							LINC01819	RPL7P31	C2CD4B
							LUCAT1	NCAPD2P1	AC023796.2
							IGHV4-34	FOXQ1	ZBP1
							IGHV1-46	NPSR1-AS1	LGALS9DP
							WISP1	FPR2	THBS2
							CPXM1	ABCA12	LINC01913

							CSF2	TIMP1	CYP24A1
							UBD	IGF2BP3	MSX2
							OR2I1P	FOSL1	AC115522.1
							ADAMTS4	SPATA20P1	LYPD5
							TNFAIP6	FIBIN	NOS2
							CXCL8	KCNJ15	KRT6B
							CXCL6	EGFL6	CCR8
							CXCL1	UNC5CL	NLRP12
							INHBA	LGALS12	HNRNPA1P21
							CXCL5	RBMXL2	LINC01679
							CXCL3	Z97206.2	MEFV
							FFAR2	Z97206.1	CD300E
							FAM92B	ARNTL2	KRT6A
							PTGS2	AC113615.1	FJX1
							DUOXA1	AC099524.1	LINC00839
							CXCL2	S1PR5	TRIM29
							FCGR3A	HRH4	DCC
							FCGR3B	AL592164.1	PLAU
							DUOX2	CHRD2	GIP
							DUOXA2	IL1RN	SLCO1B3
							FCN1	LINC00114	TNFRSF9
							IGHV2-70D	BGN	RNF182
							LILRA5	TM4SF20	KLK7
							ACOD1	IL13RA2	KLK6
							IGHV3-73	IGHV1OR15-2	BCL2A1
							CTLA4	LINC02115	LIPN
							AQP5	KYNU	LILRA6
							IL17A	AC004585.1	MNDA
							PLA1A	IL11	SOCS3
							CSF3R	SPINK4	AC061992.1
							AC007991.4	VNN1	IGHV6-1

							AC007991.2	CCNG1P1	CCR3
							IDO1	LINC01484	CXCR2
							SELP	MZB1	IGHV1-2
							SELE	ESM1	IGHV1-3
							NMUR2	TRIB2	TREML4
							TCN1	LPL	FAM83A
							CLDN14	JSRP1	TREM1
							CLEC5A	SYT12	IGHV3-15
							PI3	VNN3	IGHV1-18
							SEMG1	CT83	LINC01709
							CLDN1	MCEMP1	CXCR1
							GZMB	APOBEC1	KLK10
							MMP7	S100P	IGHV3-20
							CHI3L1	ADGRG3	IGHV3-21
							HCAR3	CCNO	IGHV1-24
							HCAR2	SLC4A11	IGHV2-26
							AL354702.1	IGFBP5	LINC01819
							FCN3	DMBT1	IGHV4-31
							REG1B	AL583785.1	LUCAT1
							PDX1	OLFM4	IGHV4-34
							REG1A	AC112721.2	IGHV4-39
							DEFB4A	XKR9	IGHV1-46
							CFI	UCN2	WISP1
							PROK2	C2CD4A	LILRB2
							AC239798.2	ENPP7	CPXM1
							MUC16	FOLH1	FFAR3
							NFE2	FAM157B	DUSP4
							FCAR	C2CD4B	CSF2
							C4BPB	AC023796.2	UBD
							C4BPA	ZBP1	OR211P
							LILRA2	LGALS9DP	ADAMTS4

							CXCL9	THBS2	TNFAIP6
							GLT1D1	OR52K3P	CXCL8
							CLDN18	MLN	CXCL6
							WNT2	CYP24A1	CXCL1
							AC245128.3	VNN2	INHBA
							SERPINA3	IFNE	CXCL5
							SERPINE1	MIR31HG	CXCL3
							FOLH1B	MSX2	FFAR2
							IFNG	CCL24	FAM92B
							IL22	AC115522.1	PTGS2
							GPR84	LYPD5	IGHV3-53
							HSD11B1	CHAC1	IGHV1-58
							TNIP3	NOS2	IGHV4-61
							CSF3	KRT6B	STRA6
							ANXA10	LINC00346	DUOXA1
							GBP1	CCR8	CXCL2
							GBP4	NLRP12	FCGR3A
							EPHB1	HNRNPA1P21	FCGR3B
							MMP3	LINC01679	DUOX2
							MMP1	MEFV	DUOXA2
							MMP10	CD300E	FCN1
							CXCL10	SIK1	IGHV1-69
							ART3	KRT6A	IGHV2-70D
							GBP5	FJX1	LILRA5
							FCGR1A	COL7A1	ACOD1
							AC243772.2	TGM2	ENKUR
							CXCL11	PCDH17	IGHV3-73
							GBP1P1	AL606807.1	NNMT
							PDPN	INHBB	MEDAG
							APOL1	H19	CTLA4
							GALNTL6	IL21R	CEMIP

























<b>Supplementary Table 5: Table summarizing genes according to the various MIS they belong to</b>							
<b>Genes</b>	<b>bMIS_CD</b>	<b>bMIS_UC</b>	<b>bMIS_IBD</b>	<b>cirMIS_CD</b>	<b>cirMIS_UC</b>	<b>cirMIS_IBD</b>	
CXCL8	1	1	1	1	1	1	
PROK2	1	1	1	1	1	1	
S100A12	1	1	1	1	1	1	
FCAR	1	1	1	1	1	1	
MCEMP1	1	1	1	1	1	1	
OSM	1	1	1	1	1	1	
S100A8	1	1	1	1		1	
AC244453.2	1	1	1	1	1	1	
AC245128.3	1	1	1	1	1	1	
AQP9	1	1	1				
CHI3L1	1	1	1				
CLEC4D	1	1	1	1	1	1	
CXCL1	1	1	1				
CXCL11	1	1	1				
CXCL5	1	1	1				
CXCR1	1	1	1				
DUOX2	1	1	1				
DUOXA2	1	1	1				
FCGR1A	1	1	1	1	1	1	
FCGR1B	1	1	1	1	1	1	
FCGR3B	1	1	1				
FPR2	1	1	1				
GPR84	1	1	1	1	1	1	

KCNJ15	1	1	1				
KRT6B	1	1	1				
LUCAT1	1	1	1				
MMP10	1	1	1				
MMP3	1	1	1				
MMP7	1	1	1				
OLFM4	1	1	1	1	1	1	
S100A9	1	1	1				
SAA1	1	1	1				
SAA2	1	1	1				
SELE	1	1	1				
SERPINB7	1	1	1				
SOCS3	1	1	1	1	1	1	
TCN1	1	1	1				
TREM1	1	1	1				
ABCA12	1	1	1				
CD300E	1	1	1				
CXCR2	1	1	1				
DEFB4A	1	1	1				
DMBT1	1	1	1				
FCN1	1	1	1				
FOLH1	1	1	1				
FPR1	1	1	1				
HCAR3	1	1	1				
IGHG3	1	1	1				
LINC02577	1	1	1				
MMP1	1	1	1				
MUC5AC	1	1	1				
REG1A	1	1	1				
TNFAIP6	1	1	1	1		1	
TNIP3	1	1	1				

VNN3	1	1	1				
ACOD1	1	1	1				
AL354702.1	1	1	1				
CLEC4E	1	1	1				
CLEC6A	1	1	1				
CXCL9	1	1	1				
FAM83A	1	1	1				
GLT1D1	1	1	1				
IDO1	1	1	1				
IL17A	1	1	1				
KRT16	1	1	1				
KRT17	1	1	1				
KRT6A	1	1	1				
REG1B	1	1	1				
SERPINA3	1	1	1				
SLCO1B3	1	1	1				
WNT2	1	1	1				
AC007991.2	1	1	1				
AC007991.4	1	1	1				
AC115522.1	1	1	1				
ADAMTS4	1	1	1				
ADGRG3	1	1	1				
AL583785.1	1	1	1				
ALDH1A2	1	1	1				
ANXA10	1	1	1				
AP005233.2	1	1	1				
APOL1	1	1	1				
AQP5	1	1	1				
ART3	1	1	1				
C2CD4A	1	1	1				
C4BPA	1	1	1				

C4BPB	1	1	1				
C4orf50	1	1	1				
C6orf223	1	1	1				
CCL11	1	1	1				
CDH3	1	1	1				
CEACAM4	1	1	1				
CFI	1	1	1				
CHRD2	1	1	1				
CLDN1	1	1	1				
CLDN14	1	1	1				
CLDN18	1	1	1				
CLEC5A	1	1	1				
CMTM2	1	1	1				
CPXM1	1	1	1				
CSF2	1	1	1				
CSF3	1	1	1				
CSF3R	1	1	1				
CSNK1A1L	1	1	1				
CTLA4	1	1	1				
CXCL10	1	1	1				
CXCL2	1	1	1				
CXCL3	1	1	1				
CXCL6	1	1	1				
DCC	1	1	1				
DCSTAMP	1	1	1				
DUOXA1	1	1	1				
EGFL6	1	1	1				
EPHB1	1	1	1				
FAM157B	1	1	1				
FAM92B	1	1	1				
FAP	1	1	1				

FCGR3A	1	1	1				
FCN3	1	1	1				
FFAR2	1	1	1				
FIBIN	1	1	1				
FJX1	1	1	1				
FOXQ1	1	1	1				
GALNTL6	1	1	1				
GBP1	1	1	1				
GBP4	1	1	1				
GBP5	1	1	1				
GIP	1	1	1				
GRIN2D	1	1	1				
GSDMC	1	1	1				
GZMB	1	1	1				
HAPLN3	1	1	1				
HCAR2	1	1	1				
IFNG	1	1	1				
IGHG1	1	1	1				
IGHG2	1	1	1				
IGHG4	1	1	1				
IGHGP	1	1	1				
IGHV1-18	1	1	1				
IGHV1-24	1	1	1				
IGHV1-3	1	1	1				
IGHV1-46	1	1	1				
IGHV2-26	1	1	1				
IGHV2-70D	1	1	1				
IGHV3-15	1	1	1				
IGHV3-21	1	1	1				
IGHV3-73	1	1	1				
IGHV4-34	1	1	1				

IGHV4OR15-8	1	1	1				
IGHV6-1	1	1	1				
IGKV3-15	1	1	1				
IGKV3-20	1	1	1				
IL11	1	1	1				
IL13RA2	1	1	1				
IL1A	1	1	1				
IL1B	1	1	1				
IL1RN	1	1	1				
IL22	1	1	1				
IL6	1	1	1				
INHBA	1	1	1				
JSRP1	1	1	1				
KRT7	1	1	1				
KYNU	1	1	1				
LBP	1	1	1				
LCN2	1	1	1				
LGALS9DP	1	1	1				
LILRA5	1	1	1				
LILRA6	1	1	1				
LINC00473	1	1	1				
LINC01484	1	1	1				
LINC01819	1	1	1				
LIPN	1	1	1				
LPL	1	1	1				
LY6D	1	1	1				
LYPD5	1	1	1				
MDFI	1	1	1				
MEFV	1	1	1				
MIR3945HG	1	1	1				
MIR5571	1	1	1				

MNDA	1	1	1				
MUC16	1	1	1				
MYEOV	1	1	1				
NFE2	1	1	1				
NLRP12	1	1	1				
NMUR2	1	1	1				
NOS2	1	1	1				
NPSR1	1	1	1				
OR2I1P	1	1	1				
PDPN	1	1	1				
PDX1	1	1	1				
PI3	1	1	1				
PLA1A	1	1	1				
PTGS2	1	1	1				
SELP	1	1	1				
SEMG1	1	1	1				
SERPINB4	1	1	1				
SERPINE1	1	1	1				
SIX1	1	1	1				
SLC11A1	1	1	1				
SMIM25	1	1	1				
SPATA20P1	1	1	1				
SPINK4	1	1	1				
STC1	1	1	1				
TDO2	1	1	1				
TFAP2C	1	1	1				
TFPI2	1	1	1				
TNFRSF10C	1	1	1				
TREML4	1	1	1				
UBD	1	1	1				
UCN2	1	1	1				

VSIG1	1	1	1				
WISP1	1	1	1				
AC239798.2	1		1	1	1	1	
AC243772.2	1			1	1	1	
GBP1P1	1		1				
LILRA2	1		1				
LINC01913	1		1				
PGC	1		1				
RNF182	1		1				
AC005515.1	1						
CALHM6	1						
CCL2	1						
CCL7	1						
CXCR2P1	1						
FOLH1B	1						
HPN	1						
HSD11B1	1						
IGHV3-7	1						
IGKV2D-29	1						
IGKV3D-15	1						
ALPL		1	1	1	1	1	
RF00019		1	1	1	1	1	
AC061992.1		1	1	1		1	
ADM		1		1	1	1	
MMP9		1		1	1	1	
CLDN2		1	1				
FFAR3		1	1	1			
SERPINB3		1	1				
AC017002.1		1	1				
AC023796.2		1	1				
AC034199.1		1	1				



AC113615.1		1	1				
BCL2A1		1	1				
C2		1	1				
C2CD4B		1	1				
CASP1P2		1	1				
CCR3		1	1				
CCR8		1	1				
CD274		1	1				
CD55		1	1				
CEMIP		1	1				
CFB		1	1				
CT83		1	1				
CYP24A1		1	1				
DSG3		1	1				
DUSP4		1	1				
ENKUR		1	1				
FAM157A		1	1				
FOSB		1	1				
GABRP		1	1				
GATA4		1	1				
GCKR		1	1				
GNA15		1	1				
HABP2		1	1				
HAS1		1	1				
HNRNPA1P21		1	1				
IGFBP5		1	1				
IGHV1-2		1	1				
IGHV1-58		1	1				
IGHV1-69		1	1				
IGHV3-20		1	1				
IGHV3-53		1	1				

IGHV4-31		1	1				
IGHV4-39		1	1				
IGHV4-61		1	1				
IGKV1-39		1	1				
IGKV1-5		1	1				
IGKV1-9		1	1				
IGKV2D-40		1	1				
IGKV3-11		1	1				
IGLV1-40		1	1				
IGLV1-44		1	1				
IGLV1-51		1	1				
IGLV3-21		1	1				
IGLV9-49		1	1				
KCND3		1	1				
KLK10		1	1				
KLK6		1	1				
KLK7		1	1				
KRT80		1	1				
L1TD1		1	1				
LAIR2		1	1				
LGALS12		1	1				
LILRA1		1	1				
LILRB2		1	1				
LINC00114		1	1				
LINC00839		1	1				
LINC01303		1	1				
LINC01679		1	1				
LINC01709		1	1				
LINC01750		1	1				
MEDAG		1	1				
MLC1		1	1				

MRPS31P2		1	1				
MSX2		1	1				
NCAPD2P1		1	1				
NNMT		1	1				
NPSR1-AS1		1	1				
PADI4		1	1				
PDE10A		1	1				
PDZK1IP1		1	1				
PIM2		1	1				
PLA2G3		1	1				
PLAU		1	1				
PQLC2L		1	1				
REG4		1	1				
RND1		1	1				
RNF183		1	1				
RPL7P31		1	1				
S100A3		1	1				
SERPINB5		1	1				
SLC4A11		1	1				
SLC7A5		1	1				
SOCS1		1	1				
STRA6		1	1				
STRIP2		1	1				
THBS2		1	1				
TIMP1		1	1				
TNFRSF8		1	1				
TNFRSF9		1	1				
TRIM29		1	1				
ZBP1		1	1				
ABCA13		1					
ABCG5		1					

ABCG8		1					
AC004585.1		1					
AC015969.1		1					
AC017002.3		1					
AC021218.1		1					
AC084871.2		1					
AC097478.1		1					
AC099509.1		1					
AC099524.1		1					
AC105046.1		1					
AC112721.2		1					
ACKR4		1					
ADGRE2		1					
ADGRE3		1					
ADGRF1		1					
ADGRG6		1					
AFF2		1					
AGT		1					
AL049836.1		1					
AL355483.3		1					
AL365226.2		1					
AL592164.1		1					
AL606807.1		1					
ALDH3B2		1					
ALDOB		1					
ANK1		1					
ANXA1		1					
APLN		1					
APOBEC1		1					
ARNTL2		1					
ATP5MC1P6		1					

BGN		1					
CA9		1					
CARD6		1					
CASP5		1					
CCL24		1					
CCNG1P1		1					
CCNO		1					
CD1B		1					
CD70		1					
CHAC1		1					
CHST2		1					
COL23A1		1					
COL7A1		1					
COL8A1		1					
CPS1		1					
CTHRC1		1					
DEFA5		1					
DEFA6		1					
DKK2		1					
DNAJA1P5		1					
EBF3		1					
EGR3		1					
ENPP7		1					
EPHX4		1					
ESM1		1					
EVA1A		1					
FCRL5		1					
FER1L4		1					
FGR		1					
FOSL1		1					
GAL		1					

GPR4		1					
GRHL1		1					
H19		1					
HGF		1					
HRH2		1					
HRH4		1					
HTR1D		1					
ICAM1		1					
IFITM9P		1					
IFNE		1					
IGF2BP3		1					
IGHD		1					
IGHV1-12		1					
IGHV1-45		1					
IGHV1OR15-2		1					
IGHV3-11		1					
IGHV3-23		1					
IGHV3-33		1					
IGHV3-43		1					
IGHV3-49		1					
IGHV3-66		1					
IGHV4-28		1					
IGHV4-59		1					
IGHV5-51		1					
IGKV1-12		1					
IGLC2		1					
IGLV1-36		1					
IGLV1-47		1					
IGLV2-5		1					
IGLV3-1		1					
IGLV3-19		1					

IGLV3-25		1					
IGLV3-27		1					
IGLV3-9		1					
IGLV6-57		1					
IL17REL		1					
IL21		1					
IL21-AS1		1					
IL21R		1					
IL26		1					
IL2RA		1					
INHBB		1					
ITLN2		1					
KCND3-AS1		1					
KCND3-IT1		1					
KCNQ3		1					
KLK11		1					
KLK12		1					
LAX1		1					
LINC00346		1					
LINC01270		1					
LINC01993		1					
LINC02115		1					
LINC02323		1					
LPCAT1		1					
LRP8		1					
MAP3K20-AS1		1					
MEOX1		1					
MIR31HG		1					
MLN		1					
MYBPH		1					
MYH13		1					

MYRFL		1					
MZB1		1					
NOTUM		1					
NPTX2		1					
OLFM3		1					
OLFML2B		1					
OLIG1		1					
OR52K3P		1					
PCDH17		1					
PGLYRP4		1					
PLA2G2A		1					
PLA2G4E		1					
PLEKHN1		1					
PLEKHS1		1					
PPP4R4		1					
PRSS1		1					
PRSS22		1					
PRSS3P1		1					
RBMXL2		1					
REG3A		1					
RFX8		1					
RGS16		1					
RN7SL368P		1					
RN7SL471P		1					
ROPN1L		1					
RPS14P4		1					
RPSAP19		1					
S100A2		1					
S100P		1					
S1PR5		1					
SERPINB2		1					



SFRP2		1				
SIK1		1				
SIRPB1		1				
SLC6A20		1				
SLC7A11		1				
SMOX		1				
SPHK1		1				
SPNS2		1				
SPP1		1				
SYT12		1				
TACSTD2		1				
TESC		1				
TFF1		1				
TGM2		1				
TM4SF20		1				
TNC		1				
TPTE2		1				
TREML2		1				
TRIB2		1				
UNC5CL		1				
VNN1		1				
VNN2		1				
VWFP1		1				
WNT5A		1				
XKR9		1				
Z97206.1		1				
Z97206.2		1				
ZC3H12A		1				
CD177				1	1	1
NR2E1				1	1	1
SLC26A8				1	1	1

AC020636.2				1	1	1	
ANXA3				1	1	1	
CLRN1				1	1	1	
KREMEN1				1	1	1	
CACNA1E				1	1	1	
GALNT14				1	1	1	
OLAH				1	1	1	
AC004917.1				1	1	1	
AC005392.2				1	1	1	
AC009226.1				1	1	1	
AC009305.1				1	1	1	
AC020636.1				1	1	1	
AC073172.1				1	1	1	
AC073172.2				1	1	1	
AC087672.2				1	1	1	
AC092336.1				1	1	1	
AC244453.3				1	1	1	
ACE2				1	1	1	
ACSL1				1	1	1	
ADGB				1	1	1	
AL008707.1				1	1	1	
AL021393.1				1	1	1	
ANKRD22				1	1	1	
ANOS1				1	1	1	
AOC1				1	1	1	
BASP1-AS1				1	1	1	
BMX				1	1	1	
BTNL3				1	1	1	
CACNB4				1	1	1	
CAPN13				1	1	1	
CLRN1-AS1				1	1	1	

CNGB1				1	1	1	
CST7				1	1	1	
DCAF13P2				1	1	1	
DUSP13				1	1	1	
DYSF				1	1	1	
F5				1	1	1	
FGF13				1	1	1	
GCSHP1				1	1	1	
GRAMD1C				1	1	1	
HP				1	1	1	
IGHA2				1	1	1	
INSC				1	1	1	
LINC01093				1	1	1	
LINC02288				1	1	1	
LINC02289				1	1	1	
LIPM				1	1	1	
MGAM2				1	1	1	
MOXD2P				1	1	1	
NAIP				1	1	1	
NDST3				1	1	1	
OPLAH				1	1	1	
PFKFB3				1	1	1	
RD3L				1	1	1	
RPH3A				1	1	1	
SDC2				1	1	1	
SDCBPP1				1	1	1	
SDR42E1P5				1	1	1	
SLC9A4				1	1	1	
SMPD5				1	1	1	
SPATC1				1	1	1	
TAS2R39				1	1	1	

TDRD9				1	1	1	
TLR5				1	1	1	
VPS26AP1				1	1	1	
ZDHHC19				1	1	1	
AL137789.1				1		1	
AL354877.1				1		1	
DSC2				1		1	
KCNH7				1		1	
MMP8				1		1	
UCHL1					1	1	
AC066616.1				1			
AC146944.2				1			
GTSCR1						1	
PGLYRP1				1			
RN7SL634P				1			
TAS2R40				1			

**Supplemental Table 6. P values of spearman correlations between bMIS and cirMIS with molecular, endoscopic, histological , and clinical markers in UC and CD patients**

UC patients		cirMIS_iMISuc	iMIS_UC	CRP	FecalCalpro	Mayo	SCCAI	Nancy							
	cirMIS_iMISuc	NA	0	0	2.21E-07	0	1.93E-09	0							
	iMIS_UC	0	NA	2.44E-15	0	0	9.71E-13	0							
	CRP	0	2.44E-15	NA	0.00056	1.42E-07	0.002246	1.20E-11							
	FecalCalpro	2.21E-07	0	0.00056	NA	3.63E-08	6.63E-06	2.06E-06							
	Mayo	0	0	1.42E-07	3.63E-08	NA	0	3.84E-09							
	SCCAI	1.93E-09	9.71E-13	0.002246	6.63E-06	0	NA	0.000428							
	Nancy	0	0	1.20E-11	2.06E-06	3.84E-09	0.000428	NA							
CD patients		cirMIS_iMIScd	iMIS_CD	CRP	FecalCalpro	SESCD	HBI	GHAS							
	cirMIS_iMIScd	NA	0	0	2.64E-07	0	5.72E-05	0							
	iMIS_CD	0	NA	0	0	0	0.061579	0							
	CRP	0	0	NA	0.00056	0	2.92E-07	2.37E-12							
	FecalCalpro	2.64E-07	0	0.00056	NA	6.85E-11	0.201177	5.64E-05							
	SESCD	0	0	0	6.85E-11	NA	1.58E-06	3.20E-08							
	HBI	5.72E-05	0.061579	2.92E-07	0.201177	1.58E-06	NA	0.105322							
	GHAS	0	0	2.37E-12	5.64E-05	3.20E-08	0.105322	NA							

<b>Supplementary Table 7</b>			
Model1	Model2	P-value	P-value
		HistoRemiss	EndoRemiss
CRP_JJmgL_log2	iMIS_IBD+CRP_JJmgL_log2	<b>7.9x10<sup>-6</sup></b>	<b>1.9x10<sup>-21</sup></b>
Log2_FecalCalpro_MgPerG	iMIS_IBD+Log2_FecalCalpro_MgPerG	<b>0.038</b>	<b>2.3 x10<sup>-5</sup></b>
CRP_JJmgL_log2	cirMIS_iMISibd_combined+CRP_JJmgL_log2	<b>0.0022</b>	<b>0.00036</b>
Log2_FecalCalpro_MgPerG	cirMIS_iMISibd_combined+Log2_FecalCalpro_MgPerG	0.4	0.074
iMIS_IBD	iMIS_IBD+CRP_JJmgL_log2	0.08	0.25
iMIS_IBD	iMIS_IBD+Log2_FecalCalpro_MgPerG	0.7	0.11
P value	cirMIS_iMISibd_combined+CRP_JJmgL_log2	0.28	0.56
cirMIS_iMISibd_combined	cirMIS_iMISibd_combined+Log2_FecalCalpro_MgPerG	0.97	0.18

<b>Supplementary Table 8:</b> Data associated with Figure 7b				
<b>Database Type</b>	<b>Datasets</b>	<b>negLog10P</b>	<b>log2FE</b>	<b>bMIS_Genesets</b>
<b>BioPlanet Database</b>	Cell adhesion molecules (CAMs)	2.295893	2.6322531	CDbMIS
	Cells and molecules involved in local acute inflammatory response	3.157486	4.656298573	CDbMIS
	Complement cascade	6.975677	3.957165053	CDbMIS
	Cytokines and inflammatory response	12.4507	5.345212038	CDbMIS
	Extracellular matrix organization	0.855574	2.38620941	CDbMIS
	Interferon-gamma signaling pathway	4.76435	3.359097564	CDbMIS
	Interleukin-1 regulation of extracellular matrix	26.51473	4.678469954	CDbMIS
	Interleukin-12-mediated signaling events	1.24733	2.836870819	CDbMIS
	Interleukin-17 signaling pathway	3.484756	4.936406493	CDbMIS
	Interleukin-2 signaling pathway	0.320342	0.813024077	CDbMIS
	Interleukin-23-mediated signaling events	8.380512	4.784403399	CDbMIS
	Jak-STAT signaling pathway	4.621872	2.872276155	CDbMIS
	Natural killer cell-mediated cytotoxicity	1.835684	2.600803461	CDbMIS
	NOD signaling pathway	7.615274	3.899412285	CDbMIS
	Oncostatin M	32.36121	3.982372347	CDbMIS
	RAGE pathway	5.311106	3.910871401	CDbMIS
	Signal transduction through IL-1R	2.007526	3.614478398	CDbMIS
	TGF-beta regulation of extracellular matrix	5.472116	2.06730056	CDbMIS
	TNF-alpha effects on cytokine activity, cell motility, and apoptosis\''''	19.79045	4.31312706	CDbMIS
	Toll-like receptor signaling pathway regulation	3.189545	2.873396695	CDbMIS
	Cell adhesion molecules (CAMs)	2.925208	2.525687937	IBDbMIS
	Cells and molecules involved in local acute inflammatory response	2.651224	4.187163331	IBDbMIS
	Complement cascade	16.93012	4.414029229	IBDbMIS
	Cytokines and inflammatory response	11.00258	4.876076796	IBDbMIS
	Extracellular matrix organization	1.055571	2.239002263	IBDbMIS
Interferon-gamma signaling pathway	4.592809	3.041965416	IBDbMIS	
Interleukin-1 regulation of extracellular matrix	22.73115	4.209334712	IBDbMIS	

Interleukin-12-mediated signaling events	1.539641	2.689663672	IBDbMIS
Interleukin-17 signaling pathway	2.980864	4.467271251	IBDbMIS
Interleukin-2 signaling pathway	1.109122	0.965377212	IBDbMIS
Interleukin-23-mediated signaling events	5.90134	4.145343156	IBDbMIS
Jak-STAT signaling pathway	4.118357	2.528671795	IBDbMIS
Natural killer cell-mediated cytotoxicity	1.227445	2.131668219	IBDbMIS
NOD signaling pathway	4.304485	3.140770426	IBDbMIS
Oncostatin M	30.51972	3.615116719	IBDbMIS
RAGE pathway	4.386495	3.441736159	IBDbMIS
Signal transduction through IL-1R	1.54711	3.145343156	IBDbMIS
TGF-beta regulation of extracellular matrix	4.930103	1.790810395	IBDbMIS
TNF-alpha effects on cytokine activity, cell motility, and apoptosis\''''	19.20078	3.964286052	IBDbMIS
Toll-like receptor signaling pathway regulation	3.033621	2.574186455	IBDbMIS
Cell adhesion molecules (CAMs)	2.202709	2.026028128	UCbMIS
Cells and molecules involved in local acute inflammatory response	3.131215	3.857428524	UCbMIS
Complement cascade	19.86453	4.099401315	UCbMIS
Cytokines and inflammatory response	9.030106	4.224413894	UCbMIS
Extracellular matrix organization	3.520328	2.587339361	UCbMIS
Interferon-gamma signaling pathway	3.760255	2.527806038	UCbMIS
Interleukin-1 regulation of extracellular matrix	22.60746	3.756980619	UCbMIS
Interleukin-12-mediated signaling events	1.465292	2.301035176	UCbMIS
Interleukin-17 signaling pathway	2.298538	3.815608349	UCbMIS
Interleukin-2 signaling pathway	1.357355	0.84976721	UCbMIS
Interleukin-23-mediated signaling events	4.589153	3.493680254	UCbMIS
Jak-STAT signaling pathway	5.522485	2.379509234	UCbMIS
Natural killer cell-mediated cytotoxicity	0.938373	1.702397738	UCbMIS
NOD signaling pathway	4.458564	2.778614141	UCbMIS
Oncostatin M	30.51972	3.204461916	UCbMIS
RAGE pathway	4.847788	3.112001351	UCbMIS
Signal transduction through IL-1R	0.971245	2.493680254	UCbMIS
TGF-beta regulation of extracellular matrix	6.194903	1.641647834	UCbMIS



	TNF-alpha effects on cytokine activity, cell motility, and apoptosis\''''	21.32046	3.622963271	UCbMIS
	Toll-like receptor signaling pathway regulation	2.308321	2.074526646	UCbMIS
<b>Cell type Associated Genesets</b>	ACKR1+ endothelial cells1_with GIMATS	6.232085	6.158798914	bMIS.CD
	Activated fibroblasts1_with GIMATS	6.835478	5.006795821	bMIS.CD
	B.Bcells	0.242281	1.099905225	bMIS.CD
	F.Endothelial	0.622232	1.486373572	bMIS.CD
	IgG plasma cells1_with GIMATS	7.20221	6.743761415	bMIS.CD
	Inf. Macrophages1_with GIMATS	13.8918	6.106331494	bMIS.CD
	Inflammatory Fibroblasts	5.298661	3.19532479	bMIS.CD
	Inflammatory Monocytes	11.99929	3.786830137	bMIS.CD
	NKs	0.844685	1.848943651	bMIS.CD
	Plasma	3.31206	2.529982124	bMIS.CD
	Post-capillary Venules	1.526478	2.006795821	bMIS.CD
	T.Tcells	1.638754	2.109555395	bMIS.CD
	Tregs	0.080284	0.524592894	bMIS.CD
	DEG_up_II1b_vs_unstim_fibroblas_Powrie	9.666388	1.740110561	bMIS.CD
	Inflammatory_fibroblasts_ST6_Powrie	5.867601	1.625204804	bMIS.CD
	M4	8.680719	4.487421661	bMIS.CD
	M5	52.93591	5.895764508	bMIS.CD
	ACKR1+ endothelial cells1_with GIMATS	5.709982	5.689663672	bMIS.IBD
	Activated fibroblasts1_with GIMATS	7.456643	4.760053	bMIS.IBD
	B.Bcells	1.06081	1.630769983	bMIS.IBD
	F.Endothelial	0.668731	1.339166425	bMIS.IBD
	IgG plasma cells1_with GIMATS	6.759067	6.274626173	bMIS.IBD
	Inf. Macrophages1_with GIMATS	14.73898	5.789199346	bMIS.IBD
	Inflammatory Fibroblasts	4.959036	2.863693072	bMIS.IBD
	Inflammatory Monocytes	12.60778	3.552160148	bMIS.IBD
	NKs	0.933159	1.701736504	bMIS.IBD
	Plasma	5.728797	2.698276802	bMIS.IBD
Post-capillary Venules	3.834795	2.412129696	bMIS.IBD	
T.Tcells	1.591571	1.862812574	bMIS.IBD	

	Tregs	1.591571	1.862812574	bMIS.IBD
	DEG_up_II1b_vs_unstim_fibroblas_Powrie	10.33241	1.616110805	bMIS.IBD
	Inflammatory_fibroblasts_ST6_Powrie	6.218021	1.488644901	bMIS.IBD
	M4	8.717167	4.170289513	bMIS.IBD
	M5	57.72574	5.619274344	bMIS.IBD
	ACKR1+ endothelial cells1_with GIMATS	4.966996	5.03800077	bMIS.UC
	Activated fibroblasts1_with GIMATS	7.549877	4.301035176	bMIS.UC
	B.Bcells	3.03395	1.979107081	bMIS.UC
	F.Endothelial	1.914328	1.687503523	bMIS.UC
	IgG plasma cells1_with GIMATS	6.068291	5.622963271	bMIS.UC
	Inf. Macrophages1_with GIMATS	12.94241	5.137536444	bMIS.UC
	Inflammatory Fibroblasts	5.354652	2.559953473	bMIS.UC
	Inflammatory Monocytes	12.23364	3.102131107	bMIS.UC
	NKs	1.619025	1.728145507	bMIS.UC
	Plasma	10.27582	2.762820934	bMIS.UC
	Post-capillary Venules	3.979669	2.108390098	bMIS.UC
	T.Tcells	1.579023	1.573719752	bMIS.UC
	Tregs	1.967291	1.725722845	bMIS.UC
	DEG_up_II1b_vs_unstim_fibroblas_Powrie	9.666388	1.316749647	bMIS.UC
	Inflammatory_fibroblasts_ST6_Powrie	7.522457	1.364229002	bMIS.UC
	M4	11.89268	4.004053438	bMIS.UC
	M5	55.8422	5.071948102	bMIS.UC
<b>GWAS and IBD drug targets</b>	IBD_drugs	2.359183	3.099905225	bMIS.CD
	IBD_drugs	2.052076	2.630769983	bMIS.IBD
	IBD_drugs	2.643393	2.564069582	bMIS.UC
	GWAS	9.145082	2.774135064	bMIS.CD
	GWAS	8.029279	2.383002334	bMIS.IBD
	GWAS	9.145082	2.183851636	bMIS.UC

Supplementary Table 9: Data for Figure 7C						
iRegulon v1.3 (build: 2015-02-12)						
Motif Collection: 10K (9713 PWMs)						
Track collection:750 ChIP-seq tracks (ENCODE uniform signals)						
Minimum NEScore=3						
Rank threshold for visualization =5000						
ROC threshold for AUC calculation (%) =0.03						
Maximum false discovery rate (FDR) on motif similarity =0.001						
Rankings Database: 10kb centered around TSS (7 species)						
# Rank	Motif id	AUC	NES	ClusterCode	Transcription factor	Target genes
1	transfac_public-M00054	0.067198	6.49336	M1	NFKB1,RELA,NFKB2,OVOL2,BCL3,REL,AP3B1,CHURC1,EBF1,STAT6,RELB	GATA4,CXCL10,UBD,CXCL2,CXCL3,DEFB4A,IL6,CHI3L1,CXCL9,LBP,PGC,IL1RN,TNFRSF9,PLAU,CXCL1,IL1B,ART3,VNN3,SELE,FFAR2,CXCL5,CXCL6,OLFM4,EPHB1,CLDN18,HAPLN3,TNFRSF8,GABRP,CSF2,CLDN2,WISP1,PDZK1IP1,KCNJ15,SERPINB7,TNIP3,CXCR1,CLEC4E,DMBT1,LILRB2,CCR8,SAA1,CLDN14,KYNU,CPXM1,HABP2,CLDN1,STRA6,ABCA12,MSX2,PTGS2,RND1,CXCL11

2	jaspar- MA0061 .1	0.065128	6.232 62	M1	RELA,NFKB1,NFKB2 ,OVOL2,BCL3,REL,A P3B1,CHURC1,STA T6,EBF1,MZF1,REL B	GATA4,CXCL10,UBD,CXCL2,DEFB4A,IL6,CXCL3,CHI3L1,PGC,CXCL9,IL1RN,LBP,TNFRSF9,PLAU,CXCL1,ART3,IL1B,SELE,VNN3,FFAR2,CXCL5,CXCL6,HAPLN3,CLDN18,OLFM4,EPHB1,TNFRSF8,GABRP,CSF2,CLDN2,CXCR1,PDZK1IP1,WISP1,LILRB2,SE RPINB7,DMBT1,TNIP3,KYNU,KCNJ15,CLEC4E,CCR8,SAA1,CLDN14,CLDN1,HABP2,RND1,STRA6,MSX2,ABCA12,CPXM1,PT GS2,NOS2,HAS1,GNA15,CXCL11,PI3
3	transfac _public- M00208	0.062774	5.936 07	M1	NFKB1,RELA,NFKB2 ,REL,BCL3	CXCL10,PGC,IL6,IL1B,IL1RN,PDZK1IP1,DEFB4A,CLDN14,GATA4,UBD,ADAMTS4,CXCL2,TNFRSF9,KCND3,CXCL3,EPHB1,LPL ,CHI3L1,TNIP3,GABRP,ABCA12,TNFRSF8,KCNJ15,OLFM4,NOS2,WISP1,WNT2,SAA1,CXCL1,CLDN2,THBS2,CLDN18,CD274, FCAR,KYNU,CXCR1,PLAU,S100A8,CXCL6,CXCL5,FFAR2,VNN3,FAM92B,EGFL6,LBP,IL11,CYP24A1,FAM83A,FCGR3B,FCGR3 A,TRIM29,RNF182,LCN2,ART3,GIP,GNA15,SERPINB7,KRT80,HABP2,NPSR1,GRIN2D,CLEC4E,VSIG1,MDFI,MSX2,FAM157 A,FAM157B,PDPN,CDH3,S100A3,CXCL9,SEMG1,MMP1,PLA1A,DMBT1,TREM1,PTGS2,STRA6,CTLA4,CLK10
4	homer- M00123	0.061451	5.769 46	M1	RELA,NFKB2,REL,N FKB1,BCL3,OVOL2, STAT6,EBF1	CXCL2,CXCL3,CXCL6,GATA4,UBD,CXCL5,CXCL1,PLAU,TNFRSF9,CHI3L1,CXCL10,SELE,IL6,LBP,IL1B,CSF3,VNN3,KCNJ15,CXC L11,CTLA4,CCR3,GABRP,CLDN14,SERPINB7,CLEC4E,OLFM4,TNIP3,SERPINB3,TFAP2C,C2CD4B,EPHB1,CSF2,LIPN,IL1A,AB CA12,BCL2A1,S100A9,FCGR3B,FCGR3A,SAA1,MLC1,PGC,HAS1,STRA6,LPL,FIBIN,FFAR2,TFPI2,PLA1A,KCND3,CLDN2,SIX1, C2CD4A,KYNU,S100A3,MSX2,NOS2,GNA15

5	factorbook-NFKB1	0.058607	5.41126	M1	BCL3,NFKB1,RELA,NFKB2,REL,MZF1,IKZF1,NFATC3,ZBTB7A,EBF1,STAT6,OVOL2,CHURC1,AP3B1,IKZF2,RELB	UBD,CXCL10,GATA4,IL1B,IL6,TNFRSF9,CHI3L1,IL1RN,CXCL2,DEFB4A,CXCL3,GABRP,LBP,CXCL5,EPHB1,PLAU,CXCL6,ADAMTS4,CXCR1,KYNU,CLDN14,RND1,OLFM4,CXCL1,SAA1,SERPINB7,CLDN2,CTLA4,PDZK1IP1,HAS1,TNFRSF8,FFAR2,VNN3,NPSR1,CLDN18,KCNJ15,TNIP3,MLC1,STRA6,MSX2,CLDN1,NOS2,CCR8,PGC,CXCL9,ART3,PLA2G3,IL11,PLA1A,PTGS2,SELE,INHBA,CXCL11,WISP1,LCN2,NFE2,GRIN2D,CSF2,DMBT1,GNA15,PDPN
6	transfac_pro-M00774	0.058012	5.33629	M1	NFKB2,RELA,NFKB1,BCL3,REL,OVOL2,EBF1,MZF1,CHURC1,AP3B1,IKZF2,ZBTB7A,RELB	GATA4,CXCL10,UBD,CXCL3,IL6,CXCL2,CSF2,PGC,PLAU,CHI3L1,CCR8,CXCL9,DEFB4A,ART3,IL1RN,TNFRSF9,SERPINB7,GABRP,LBP,IL1B,S100A3,CXCL1,CXCL5,KYNU,NPSR1,CLDN14,NOS2,WISP1,PROK2,SAA1,PDZK1IP1,EPHB1,CLDN18,CXCL6,OLFM4,FFAR2,KCNJ15,PLA2G3,PI3,CLEC4E,CYP24A1,DMBT1,S100A8,LILRB2,CTLA4,TNFRSF8,EGFL6,TNIP3,ABCA12,VNN3,KCND3,CD274,MSX2,MLC1,FAM83A,GNA15,HAS1,SOCS3
7	swissregulon-NFKB1_REL_REL A.p2	0.057416	5.26132	M1	NFKB1,REL,RELA,BCL3,OVOL2,ZBTB7A,NFATC3,NFKB2,CD59	CXCL10,GATA4,DEFB4A,CXCL2,CXCL3,TNFRSF8,IL1RN,IL6,TNFRSF9,PI3,UBD,MLC1,CXCL1,HAPLN3,PDZK1IP1,OLFM4,CLDN2,CLDN14,MSX2,IL1B,TFAP2C,HAS1,EPHB1,ABCA12,SAA1,CXCL5,FFAR2,CLDN18,STRA6,CXCL6,PGC,FCGR3B,FCGR3A,HABP2,KYNU,NOS2,CHI3L1,PROK2,PLAU,NPSR1,DMBT1,SERPINB7,VNN3,EGFL6,CEACAM4,LBP,SAA2,PDE10A,CCR8,TRIM29,SOCS3,CSF2,SELP,S100A3,MDF1,GNA15,PTGS2,KRT17,LY6D,PLA2G3,TNIP3,GIP,KLK10,INHBA,ALDH1A2,CXCR1,FOSB,WISP1,LCN2,DUOXA1

8	transfac_pro-M00924	0.056728	5.17469	M2	JUNB,JUN,FOSL2,FOS,FOSL1,JUND,FO SB,SOX4,ZNF333,BATF,BACH2	FOSB,OSM,IFNG,GIP,IL1A,IL11,S100A3,SERPINB7,OLFM4,S100A8,PLAU,CLDN1,TNIP3,SLC4A11,CSF2,SERPINB5,LY6D,AQP9,CLDN14
9	transfac_pro-M03580	0.054672	4.91562	M3	SMAD2	C6orf223,LYPD5,HAS1,PIM2,PLAU,SERPINB7,GRIN2D,INHBA,PLA2G3,GPR84,ALPL,MDFI,KRT80,CLDN14,SERPINE1,ART3,CSF3R,IL11,DMBT1,TRIM29,MMP1,KCND3,SERPINA3,C4BPB,KRT7,OLFM4,S100A8,FAM157A,THBS2,GIP,CLDN1,SIX1,FO SB,TNIP3,PDZK1IP1,NFE2,AQP5,FCGR3B,TNFRSF9,CEACAM4,PROK2,FCN1,UCN2,DCC,KCNJ15,CDH3,KRT17,IL6,KLK6,WN T2,DUOXA1,ABCA12
10	transfac_pro-M03563	0.0544	4.88146	M1	RELA,NFKB1,NFKB2,BCL3,OVOL2,REL,A P3B1,CHURC1,STAT6,EBF1,E2F1,MZF1,IRF1,RELB	CXCL10,GATA4,UBD,CXCL9,CXCL3,CXCL2,CSF2,ART3,IL6,S100A3,DEFB4A,CLDN18,PLAU,CHI3L1,PGC,TNFRSF9,C2CD4B,IL1RN,SERPINB7,PLA2G3,LBP,IL1B,WISP1,CCR8,EPHB1,CXCR2,KYNU,ADAMTS4,KCNJ15,CXCL1,KCND3,GALNTL6,PDZK1IP1,PI3,CYP24A1,LY6D,CXCL5,CLDN14,KRT7,TNFRSF8,GABRP,OLFM4,S100A8,DCC,HABP2,CXCR1,FFAR2,LILRB2,SELE,CXCL11
11	flyfactor_survey-dl_NBT_FBgn0000462	0.053997	4.83065	M1	NFKB1,RELA,REL,YY1,RELB	GATA4,CXCL9,STRA6,ART3,UBD,PROK2,CXCL10,EPHB1,S100A3,CXCL2,EGFL6,CXCL3,VNN3,GALNTL6,FFAR2,ABCA12,TNFRSF9,TNIP3,IL6,CLEC4E,GRIN2D,CLDN18,PDPN,SELE,CXCR1,CCR8,OLFM4,FCGR3B,FCGR3A,PLAU,PDZK1IP1,RND1,NPSR1,INHBA,CXCL1,TFAP2C,GABRP,CHI3L1,CLDN14,SERPINB7,LBP,PDE10A,CXCL5,DEFB4A,IL11,TNFRSF8,NOS2,KCNJ15,CSNK1A1L,KYNU,CXCL6,SOC3,PDX1,CXCR2,S100A8,KCND3,ZBP1,MDFI,DUOXA2,PTGS2,SELP

1 2	swissreg ulon- FOSL2.p 2	0.053719	4.795 66	M2	FOSL2,FOSB,JUN,F OSL1,JUND,JUNB,F OS,BATF,BACH2,SO X4,ZNF333,SPI1,M YBL2,MYBL1,MYB,S NAPC4	GIP,IL1A,IL11,SLC4A11,OSM,KRT16,IFNG,PLAU,CLDN1,LY6D,OLFM4,TNIP3,KCND3,SERPINB7,CLDN14,CSF2,SERPINE1,CX CR2
1 3	homer- M00142	0.052284	4.614 9	M1	NFKB1,BCL3,MZF1, REL,RELA,STAT6,AP 3B1,CHURC1,YY1,O VOL2,NFKB2,EBF1, E2F1,USF2,STAT1,R ELB	GATA4,UBD,CXCL10,CXCL3,TNFRSF9,CHI3L1,CXCL2,PGC,VNN3,IL6,CCR8,CXCL9,KYNU,EPHB1,DEFB4A,SELE,PLAU,OLFM4 ,CXCL1,CLDN14,CXCL5,LBP,GABRP,IL1B,ART3,FFAR2,LY6D,CXCL6,CSF2,SERPINB7,PI3,CLDN1,TNIP3,PLA2G3,IL1RN,CXCR 1,STRA6,TNFRSF8,CTLA4,HAS1,NPSR1,RND1,CAA1,ABCA12,DMBT1,NOS2,PDZK1IP1,MLC1,PTGS2,HAPLN3,CXCL11,LILRB 2,MSX2,S100A8,EGFL6,NFE2,CLDN2,KCNJ15,CXCR2,LCN2,WISP1,IL11,PLA1A,HABP2,PROK2,GRIN2D,CLEC4E,S100A3,PD PN,CD274,FCGR3B,C2CD4A,FCGR3A,DUOXA1,S100A9,CYP24A1,CSF3R,MEFV,MDFI,PDE10A,TFPI2,KRT7,INHBA,FOXQ1,K CND3,CLDN18,STC1,GALNTL6,TDO2,CCR3,DUOXA2
1 4	taipale- NGGGG AWTCC CCN- NFKB2- DBD	0.052244	4.609 9	M1	NFKB2,NFKB1,MZF 1,IKZF1,RELB	CXCL2,CXCL3,FFAR2,HAPLN3,OLFM4,DEFB4A,TNFRSF9,FJX1,TNFRSF8,CXCL10,HAS1,GRIN2D,CXCL6,CXCL5,CXCL1,SELP,N PSR1,TFAP2C,CLK10,PDZK1IP1,LCN2,PTGS2,VNN3,DUOXA2,ART3,S100A9,PDX1,GALNTL6,CXCL9,IL6,CHI3L1,CEACAM4,C LDN14,GATA4,UBD,CXCR1,CLEC4D,HABP2,S100A3,CCR8,PLA2G3,IL11,MDFI,ABCA12,LBP,MSX2,S100A12,SOCS3,TNIP3, KRT17,FOSB,LY6D,S100A8,NFE2,PLA1A,CLDN18,PGC,PDPN,PROK2,LILRA2,STRA6,GCKR,C2,LYPD5,LILRB2,PI3,CD274,CXC L11,PLAU,IGFBP5,EPHB1,WNT2,SERPINB7,MLC1,SLC7A5

15	encode-UW.Motif.0185	0.050439	4.38248	M4		LYPD5,GRIN2D,HAS1,KLK10,TNFRSF9,SERPINE1,KLK6,PIM2,CLDN14,CLEC4D,SAA1,IL11,C2CD4A,FIBIN,PLAU,TNIP3,TIMP1,GABRP,S100A3,STRA6,CLDN18,FPR2,FCN1,KRT80,NNMT,PLA2G3,S100A12,MDFI,SERPINB7,S100A8,CD55,S100A9,CSF3R,NFE2,CLDN2,INHBA,ALDH1A2,ABCA12,PDPN,DEFB4A,C4BPB,IL1A,RNF183,RNF182,CXCL1,IL1B,FOSB,KCNJ15,STC1,KLK7,MMP1,C2CD4B,TNFRSF8,PGC,AQP9,CHI3L1,CXCR2,GNA15,ZBP1,HABP2,LPL
16	elemento-TCCAGGA	0.048931	4.19255	M5		GRIN2D,SAA1,KRT80,HAS1,CEACAM4,DCC,TNIP3,LYPD5,NPSR1,IL11,CCR3,CTLA4,CXCR1,NOS2,THBS2,PLAU,SERPINB4,MDFI,LCN2,CLDN14,PDE10A,KCNJ15,KLK10,CXCR2,STRA6,DUOXA2,GIP,SERPINA3
17	homer-M00562	0.048931	4.19255	M1	RELA,REL,RELB,NFKB1,OVOL2,NFKB2,YY1	GATA4,CHI3L1,CXCL9,CXCL2,CXCL10,UBD,CXCL3,ART3,IL6,TNFRSF9,PLAU,CXCL5,GABRP,CXCL6,CXCL1,PGC,TNIP3,C2CD4B,VNN3,EPHB1,LBP,SAA1,FFAR2,DEFB4A,MLC1,SELE,ABCA12,GALNTL6,CLDN14,S100A3,STRA6,HABP2,CCR8,KCNJ15,OLFM4,KCND3,PROK2,PDPN,NOS2,SERPINB7,CLEC4E,INHBA,CXCL11,KYNU,KLK10,CLDN18,C2CD4A,EGFL6,S100A9,LIPN,CSF3R,SOCS3,LILRB2,PTGS2,HAS1,PI3,NPSR1,CLDN2,TNFRSF8,CEACAM4,DUOXA2
18	transfac_public-M00194	0.04852	4.14091	M1	NFKB1,REL,RELA,NFKB2,E2F1,MZF1,BCL3,OVOL2,EBF1,STAT6	CXCL10,PGC,CSF2,IL6,GATA4,UBD,ADAMTS4,PLAU,CHI3L1,DEFB4A,LBP,WISP1,CXCL9,ART3,OLFM4,CLDN14,TNFRSF9,CCR8,IL1B,SOCS3,CXCL2,GNA15,SERPINB7,VNN3,CLDN2,DMBT1,FFAR2,IL1RN,PDZK1IP1,GABRP,KYNU,MMP1,NOS2,CTLA4,EPHB1,FCGR3B,CLDN18,FCAR,KCNJ15,WNT2,TNFRSF8,CEACAM4,ABCA12,LPL,CD274,LILRB2,INHBA,CYP24A1,FCGR3A,MDFI,CXCL5,CXCL3,C6orf223,CLEC4E,PDX1,HABP2,CXCL6,CCR3,S100A8,MSX2,NPSR1,CLDN1,PLA1A,PI3,CXCR1,SAA1,STRA6,HAS1,RNF182,S100A9,SERPINB3,TNIP3,CXCR2,TFAP2C,MLC1,CXCL1,GIP,FAM92B,KRT80,TRIM29,S100A3,EGFL6,DUOXA1,MYEOV,KCND3,CXCL11,NFE2,CCL11,C2CD4B,SAA2,LY6D,ENKUR,SELE,CSF3R



19	encode-UW.Motif.0452	0.048401	4.12591	M4		TRIM29,TNFRSF8,GRIN2D,CTLA4,EPHB1,LYPD5,HAS1,MDFI,CLDN14,FOSB,AQP9,TNIP3,KCNJ15,KLK10,CCR8,PLAU,IL1RN,IL11,GIP,C2CD4A,KLK6,STRA6,CD274,TNFRSF9,CXCL2,GABRP,KLK7,KRT16,CXCL3,IGFBP5,KRT7,CSF3R,PROK2,SERPINE1,NMUR2,CXCR1,HABP2,SERPINB7,RNF182,NOS2,SERPINB5,IL1B,KCND3,RNF183,S100A3,SIX1,DCC,PGC,DUOXA1,NFE2,LY6D,CYP24A1,KRT80,S100A9,TFPI2,SOCS3,ALDH1A2,FCGR3B,PLA2G3,TDO2,CDH3,MMP7,NPSR1,FAP,PDPN,STC1,LPL
20	jaspar-MA0107.1	0.048097	4.08759	M1	RELA,NFKB1,BCL3,REL,NFKB2,OVOL2,EBF1,STAT6	GATA4,CXCL10,CXCL2,CXCL3,UBD,CXCL5,CXCL6,CXCL1,PLAU,TNFRSF9,CHI3L1,SELE,IL6,IL1B,EPHB1,CLDN14,C2CD4B,SA A1,CSF2,STRA6,LBP,GABRP,IL1RN,SIX1,PROK2,CXCR2,FFAR2,PGC,VNN3,DEFB4A,MLC1,RNF182,CXCL9,SERPINB7,CCR8,H AS1,CLEC4E,NFE2,MSX2,CCR3,C6orf223,OLFM4,TNIP3,HABP2,CTLA4,BCL2A1,CXCL11,CLDN2,PDZK1IP1,KYNU,KCNJ15,C LDN18,S100A8,ABCA12,C2CD4A,FCGR3B,NOS2,ART3,S100A9,DUOXA2,MEFV,S100A3,LIPN
21	transfac_pro-M02095	0.047601	4.02512	M2	FOSL1,JUND,FOS,UNB,FOSB,JUN,FOSL2,BACH2,SPI1,BATF	OSM,SLC4A11,GIP,IL11,FOSB,IFNG,KRT16,PLAU,SERPINB7,IL1A,CSF3R,LY6D,AQP9,KCND3,INHBA,DCC,TRIM29,KLK10,TNIP3,CLEC4E,OLFM4,MEFV,ABCA12,CXCL2,TDO2,CYP24A1,PROK2,UBD,CLDN14,SERPINB5,S100A3,HABP2,TIMP1,KCNJ15,CLDN1,WNT2,FAM157A,SERPINA3,FCN3,CSF2,LIPN,S100A9,SERPINE1,NFE2,S100A8,FAP,STRA6,CXCR2,FCGR3A,KRT7,ANXA10,C2CD4A,SLCO1B3,RNF183,MMP1,CXCL5,KYNU,SELP,CXCL3,HAS1,CXCL6,SLC7A5,SLC11A1,DUSP4,C6orf223,EPHB1,PDPN,SOCS3,GBP1,LBP,TNFRSF9,LILRB2,PADI4,IL22,KLK6,FAM157B,APOL1,CHI3L1,AQP5,PGC,CXCR1,IL1B,UCN2
22	jaspar-PF0086.1	0.04688	3.93432	M1	NFKB1,BCL3,EBF1,STAT6,RELA,REL,NFKB2,OVOL2,NFATC3,ZBTB7A,RELB	GATA4,UBD,CXCL2,IL6,CXCL3,TNFRSF9,CXCL6,CXCL5,CXCL1,CLDN14,PGC,EPHB1,MSX2,PLAU,MMP3,ABCA12,IL1B,SA A1,CHI3L1,KYNU,MLC1,LBP,CLDN2,SERPINB7,NOS2,FFAR2,CTLA4,BCL2A1,PDZK1IP1,PLA1A,OLFM4,EGFL6,IL1RN,ALDH1A2,CCR3,TRIM29,GABRP,HAS1,PDPN,KCNJ15,TFAP2C,KRT7,PI3,DEFB4A,SERPINB5,SELE,KCND3,TNIP3,FOXQ1,RNF182,PROK2,CXCL11,PDE10A,CLEC4E,CLEC4D,CD274,INHBA,STC1,NPSR1

23	elemento-CCAAGGAG	0.046847	3.93015	M6		HAS1,DMBT1,GRIN2D,FAM83A,DCC,CSF3R,LCN2,PDX1,CSF2,KRT80,GZMB,S100A8,RNF182,CLDN2,FAP,CLDN14,TNIP3,NFE2,KCNJ15
24	encode-UW.Motif.0109	0.046616	3.901	M4		SAA1,GRIN2D,HAS1,LYPD5,IL11,KLK10,GIP
25	transfac_public-M00052	0.04645	3.88017	M1	RELA,BCL3,NFKB1,REL,NFKB2,OVOL2,STAT6,EBF1,RELB	GATA4,CXCL10,CXCL2,CXCL3,UBD,PLAU,CXCL5,CXCL1,TNFRSF9,CXCL6,IL6,CHI3L1,SELE,C2CD4B,CLDN14,STRA6,IL1B,CSF2,EPHB1,PGC,LBP,GABRP,DEFB4A,FFAR2,IL1RN,CXCR2,VNN3,CXCL9,SIX1,PDZK1IP1,CCR8,PROK2,CCR3,SAA1,CLDN18,S100A8,HAS1,HABP2,NOS2,S100A3,ART3,OLFM4,LIPN,CLEC4E,MLC1,CTLA4,RNF182,CSF3R,KYNU,MSX2,DUOXA2,SERPINB7,CLDN2,NFE2,SOCS3,TNIP3,C6orf223,C2CD4A,PDPN,KCNJ15,TNFRSF8,BCL2A1,PDE10A,CXCL11,ABCA12,KRT7,NPSR1,PTGS2,KCND3,FCGR3B,EGFL6,GNA15,FOXQ1,CPXM1,MEFV,PLA1A,CXCR1,PLA2G3,GRIN2D
26	taipale-NTTRCGCAAY-CEBPE-DBD	0.045663	3.78104	M7	CEBPE,CEBPB,CEBPD,CEBPG	CSF3R,CYP24A1,PTGS2,SIX1,AQP9,IL1B,VNN3,NFE2,FOSB,MEFV,IL6,DMBT1,OSM,TNIP3,TNFRSF9
27	tfdimers-MD00435	0.044956	3.69191	M8	IKZF2,PAX4	LYPD5,HAS1,GRIN2D,C6orf223,KLK6,IL11,HAPLN3,PGC,KLK7
28	transfac_pro-M01214	0.044737	3.66442	M8	ELF3	C6orf223,DCC,SERPINB3,CXCL6,SERPINB4,IL1A,SERPINE1,FFAR2,GABRP,IL1RN,C2CD4B,ALDH1A2,RNF182,DEFB4A,KRT17,IL1B,KCND3,GATA4,STC1,PLAU,CXCL5,PROK2,SERPINB7,S100A9,HAPLN3,NMUR2,CSF2,EPHB1,MLC1,FIBIN,PLA2G3,HABP2,MDFI,NFE2,CXCL2,LIPN,TNIP3,GRIN2D,IL11,TIMP1,NPSR1,S100A8,GIP,CEACAM4,DMBT1,PDE10A,ART3,S100A3,CYP24A1,TFPI2,EGFL6,THBS2,CLDN18
29	yetfasco-1382	0.044737	3.66442	M9		GRIN2D,IL11,HAS1,KLK6,KLK7,KLK10,PDZK1IP1,THBS2,JSRP1,PGC,LYPD5,HABP2

30	homer-M00188	0.044407	3.62277	M5	STAT4,STAT3,STAT1,STAT6,BCL6,STAT5A,STAT5B	SOCS3,PLA2G3,CCR3,STC1,PDE10A,KCNJ15,PDZK1IP1,DUSP4,UBD,LPL,MLC1,C6orf223,CXCL11,MMP3
31	jaspar-MA0105.1	0.04436	3.61694	M1	NFKB1,NFKB2,OVL2,RELA,AP3B1,CHURC1	GATA4,CXCL10,OLFM4,HAS1,DEFB4A,CXCL2,UBD,HAPLN3,TNFRSF9,FFAR2,PGC,GRIN2D,CXCL3,STRA6,CXCR1,FJX1,CEACAM4,PROK2,GALNTL6,FCGR3A,RND1,DMBT1,LY6D,KLK10,EPHB1,VNN3,FCGR3B,CCR8,CLDN1,PTGS2,EGFL6,DUOXA2,TFAP2C,LCN2,TNFRSF8,CLDN14,CXCL1,PLA2G3,TNIP3,S100A3,KRT17,KRT16,IL6,NPSR1,KCNJ15,IL11,LBP,S100A8,CLEC4E,HABP2,CLDN18,CHI3L1,FIBIN,CXCL6,SELP,NOS2,WNT2,CXCL5,S100A9,SERPINB7,RNF182,CSF3,GIP,GABRP,TFPI2,S100A12,PDX1,DUOXA1,AQP5,SAA1
32	taipale-NCTCGT AAAAN-HOXA13-DBD	0.044268	3.60527	M10	HOXA13,HOXB13,HOXC13,HOXD13	CTLA4,WNT2,MSX2,ALDH1A2,INHBA,C6orf223,DUSP4,RNF182,ALPL,CLDN2,TNIP3,KRT16,GATA4,KCND3,CSNK1A1L,PLAU
33	transfac_pro-M00792	0.044082	3.58195	M3	SMAD3,SMAD2,SMAD4,SMAD1	C6orf223,GIP,PLA2G3,UCN2,GPR84,IL11,LYPD5,GRIN2D,MDFI,IL1B,NFE2,HAS1,ART3
34	homer-M00185	0.043937	3.56362	M5	STAT1,STAT6,STAT3,STAT4,STAT5B,STAT5A,BCL6,STAT2	SOCS3,PLA2G3,STC1,UBD,CCR3,KCNJ15,PDE10A,LPL,KCND3,FAP,IDO1,MLC1,CXCL11,GATA4,MMP3,ABCA12,CYP24A1,VSIG1,LIPN,ALDH1A2,GABRP,AQP9,CLDN14,PLAU,S100A3,SLC4A11,EGFL6,DUSP4,CHI3L1,TNIP3,VNN3,TNFRSF9,GBP5,SERPINB3,GALNTL6,CD274,CXCR2,PLA1A,GZMB
35	transfac_pro-M00701	0.043858	3.55363	M3	SMAD3	GRIN2D,DMBT1,HAS1,PIM2,LYPD5,SERPINE1,INHBA,ALPL,MDFI,PROK2,AQP5,KCND3,OLFM4,KCNJ15,FAM157A,TRIM29,PLAU,SLC4A11,CLEC5A,IL1RN,CSF3,CSF3R,HABP2,DUOXA1,C4BPB,TNIP3,CLEC4D,RNF182,LILRA2,FOSB,KRT80,STRA6,FAM157B,SERPINB7,ABCA12,C2CD4A

36	encode-UW.Motif.0199	0.043851	3.55279	M4		GRIN2D,HAS1,KLK6,S100A8,LCN2,IL11,PDZK1IP1,KRT80,CXCR1,LYPD5,S100A3,SERPINE1,PLA1A,SOCS1,CXCR2,HABP2,CLDN2,FAM83A
37	transfac_public-M00053	0.043725	3.53696	M1	REL,YY1,NFKB1,RELA,BCL3,OVOL2,STAT6,EBF1,NFATC3,ZBTB7A,NFKB2,RELB	GATA4,SAA1,CXCL2,UBD,CXCL3,CXCL10,SOCS3,CHI3L1,PI3,C2CD4B,EPHB1,CXCL5,KYNU,CXCL1,SELE,SLC7A5,FOXQ1,IL6,PLAU,TNFRSF9,CSF2,GABRP,CXCR2,SERPINB7,CXCL6,MLC1,S100A3
38	encode-UW.Motif.0286	0.043454	3.50281	M4		C6orf223,GPR84,CHI3L1,SERPINE1,PLA2G3,KRT80,KRT16,GIP,TRIM29,S100A9,STRA6,S100A3,CSF2,HAS1,KRT17,SERPINB5,FOSB,THBS2,C2CD4A,DUSP4,KLK7,OSM,MDFI,PDZK1IP1,PDPN,INHBA,KCND3
39	yetfasco-193	0.043269	3.47949	M8		TDO2,TRIM29,NFE2,CSF2,KCNJ15,S100A3,RND1,CLDN14,KYNU,CXCR1,CLDN2,OLFM4,GABRP,TFPI2,ALDH1A2,STRA6,SERPINA3,CLDN1,KCND3,S100A8,PLAU,IL1B,S100A12,TNIP3,TNFRSF8,GATA4,LIPN,DCC,FOXQ1
40	homer-M00019	0.042938	3.43784	M7	CEBPE,CEBPG,CEBPB,CEBPD	CSF3R,CYP24A1,AQP9,SIX1,DMBT1,VNN3,KRT6A,IL1B,IL6,CLDN14
41	stark-GGGGA MWWC CM	0.042826	3.42367	M1	HIVEP1,HIVEP3,HIVEP2,ZNF831	CCR8,CXCL9,FFAR2,CXCL10,EPHB1,DEFB4A,OLFM4,ART3,VNN3,KYNU,PDZK1IP1,TNIP3,CSNK1A1L,CD274,S100A3,KCNJ15,UBD,PDX1,GALNTL6,GIP,GABRP,CLDN18,TNFRSF9,EGFL6,GRIN2D,HABP2,CLDN14,ABCA12,IL6,CLEC4E,S100A8,CPXM1,PROK2,PDPN,STRA6,MDFI,CHI3L1,THBS2,CXCR1,GATA4,CXCL2,CXCR2,HAPLN3,MSX2,IL1B,AQP9,DUSP4,TNFRSF8,INHBA,S100A9,SERPINB7

4 2	transfac _pro- M01889	0.042746	3.413 68	M3	SMAD4,GATA2,GA TA5,GATA4,GATA1, GATA6,GATA3	C6orf223,MDF1,LYPD5,GRIN2D,PIM2,HAS1,FOSB,UCN2,SERPINE1,MMP1,IL11,SERPINB7,CLDN14,DMBT1,CEACAM4,GP R84,PLA2G3,KCNJ15,KCND3,EPHB1,KRT80,TRIM29,PLAU,CHRDL2,TNFRSF9,CLDN2,TNIP3,LILRA6,PDPN,PDZK1IP1,CDH3, HABP2,CSF3R,S100A8,ALPL,KRT17,S100A3,GABRP,PGC,IL1B,MEFV,ABCA12,LY6D,S100A9,NFE2,EGFL6,FAM83A,GIP,CXC R2,LILRA2,PROK2
4 3	jaspar- MA0101 .1	0.04274	3.412 84	M1	REL,YY1,NFKB1,REL A,BCL3,OVOL2,EBF 1,STAT6,NFATC3,Z BTB7A,NFKB2,RELB	GATA4,SAA1,CXCL2,UBD,CXCL3,CXCL10,CHI3L1,SOCS3,PI3,EPHB1,C2CD4B,CXCL5,CXCL1,KYNU,SELE,FOXQ1,SLC7A5,IL6, TNFRSF9,GABRP,PLAU,S100A9,CSF2,CXCR2,CXCL6,CLDN14,MLC1,SERPINB7,S100A3,VNN3
4 4	yetfasco -1611	0.042112	3.333 71	M11		MSX2,AQP9,WNT2,THBS2,FFAR2,INHBA,S100A12,SPINK4,CLDN14,SERPINB7,S100A3,GATA4,IGFBP5,SERPINE1,SIX1,KRT 17,GABRP,ABCA12,IL6,IL1A,IL1B,NFE2,SLC7A5,PLAU,CLDN2,FOXQ1,PGC,TNIP3,KRT80,CLDN1,IDO1,SOCS3,SAA1,SAA2,P DPN,CCR8,STRA6
4 5	taipale- RTGTTA AAYGTA GATTAA G- ZNF232- full	0.04182	3.297 05	M12	ZNF232	PROK2,EPHB1,GIP,CHRDL2,VSIG1,DMBT1,DSG3,AQP9,ALDH1A2,SELE,SIX1,SERPINB5,SERPINB7,CFB

46	transfac_pro-M03815	0.041761	3.28956	M2	FOS,FOSL2,FOSL1,FOSB,JUND,JUN,JUNB	OSM,IL11,IFNG,GIP,FOSB,PLAU,MEFV,SLC4A11,CLDN14,TNIP3,SERPINB7,TIMP1,AQP9,CSF2,IL1A,HABP2,UBD,CLEC4E,KYNU,KCND3,KRT16,CXCR2,LY6D,DCC,TDO2,SERPINB5,HAS1,KCNJ15,PROK2,SERPINE1,ANXA10,ABCA12,SLC11A1,S100A8,TRIM29,LYPD5,IL6,RNF183,IL1B,PADI4,TNFRSF9,WISP1,KLK10,NPSR1,LBP,SELP,CSF3R,SLCO1B3,REG4,NFE2,FAM157A,REG1B,APOL1,KRT7,INHBA,S100A3,FOLH1,C2CD4A,CXCL6,EGFL6,CXCL2,TREM1,OLFM4,S100A9,CXCL3,PDPN,MDFI,CHI3L1,WNT2,EPHB1,SERPINA3,DEFB4A,CYP24A1,CXCL5,FCN3,CXCR1,GATA4,CPXM1,FAP,MMP1,CCL11,GABRP,STRA6,CCR3,ALPL
47	encode-UW.Motif.0374	0.041715	3.28373	M4		CLDN2,EPHB1,C6orf223,GABRP,DEFB4A,RNF182,PDX1,CXCR2,KCNJ15,CHRDL2,HAS1,GZMB,L1TD1,GIP,CXCR1
48	factorbook-CEBPB	0.041569	3.2654	M7	CEBPB,CEBPE,CEBPG,CEBPA,CEBPD,ATF4,DDIT3,NFIL3	NFE2,CYP24A1,SIX1,IL1B,CSF3R,MEFV,VNN3,STC1,IL13RA2,AQP9,KRT6B,DSG3,C4BPA,FIBIN,CXCL2,LCN2,TNFRSF9,CLDN14,FOSB,SAA1
49	transfac_pro-M03551	0.041563	3.26457	M2	JUNB,JUND,FOSB,FOSL1,JUN,FOS,FOSL2,BATF,SPI1,BACH2	OSM,GIP,SLC4A11,IL11,FOSB,IFNG,KRT16,PLAU,KLK10,IL1A,SERPINB7,PROK2,UBD,CLEC4E,MEFV,LY6D,TRIM29,CLDN14,S100A3,KCND3,CXCR2,CLDN1,TNIP3,DCC,HABP2,INHBA,SERPINB5,OLFM4,ANXA10,RNF182,FAM157A,IL1B,REG1B,CSF3R,AQP9,TDO2,PADI4,SLC11A1,ABCA12,KCNJ15,SERPINE1,SLCO1B3,EPHB1,FFAR2,DUSP4,KLK6,S100A9,CXCR1,S100A8,CSF2,CHRDL2,CXCL2,LIPN,NPSR1,SERPINA3,RNF183,PDPN,SELP,CYP24A1,TNFRSF9,SELE,FAM157B,LYPD5,THBS2,IL6,CD274,FCN3,CHI3L1,NFE2,FAP,KRT7,MMP10,MMP1,PIM2,MDFI,KYNU,TIMP1,HAS1,SOCS3

50	taipale-NGGGGAWTCCCN-NFKB1-DBD	0.041516	3.25874	M1	NFKB1,NFKB2,HIVEP1,HIVEP3,HIVEP2,ZNF831	HAPLN3,FJX1,GRIN2D,HAS1,KLK10,FFAR2,STRA6,TNFRSF9,TFAP2C,PTGS2,CXCL2,CXCL3,SELP,DUOXA2,OLFM4,IGFBP5,RND1,GALNTL6,NPSR1,TNFRSF8,LCN2,GATA4,VNN3,PLAU,CXCL1,S100A12,CXCR1,LAIR2,IL11,PROK2,LILRB2,DEFB4A,PDZK1IP1,CLEC4D,PGC,PDX1,HABP2,CXCL10,CXCL6,PLA2G3,CEACAM4,CXCL5,CLDN2,SLC7A5,CSF2,GCKR,CLDN18,FCN3,C2,LP,CLDN14,LYPD5,FPR1,DMBT1,TNIP3,FCGR3B,CCR8,NFE2,SERPINB5,KRT16,FAM92B,PIM2,SPINK4,EGFL6
51	transfac_pro-M01888	0.041417	3.24624	M3	SMAD3,SMAD5,SMAD7,SMAD4,SMAD9,SMAD1,SMAD6,SMAD2	LYPD5,MDFI,PIM2,GRIN2D,C6orf223,HAS1,DMBT1,SERPINE1,PLAU,UCN2,PLA2G3,KRT80,KCNJ15,THBS2,C4BPB,IL11,SERPINB7,FOSB,ALPL,IL1RN,GPR84,PROK2,NFE2,CHRDL2,TNFRSF9,STRA6,CSF3R,GIP,PDE10A,CSF3,AQP5,EPHB1,KCND3,KLK7,INHBA,SLC4A11,CLDN14,ADAMTS4,SLCO1B3,PDZK1IP1,TNIP3,PLA1A,AQP9,HABP2,NPSR1,CHI3L1,CLDN1,WNT2,CLEC5A,TIMP1,OSM,ABCA12,CDH3,CLDN18,MEFV,FCGR3A,FCGR3B
52	iDMMPMM-DL	0.041351	3.23791	M1	RELA,REL,RELB,OVOL2,NFKB1,NFKB2,YY1	GATA4,UBD,CXCL9,ART3,IL6,EPHB1,CHI3L1,GABRP,CXCL10,CXCL3,GALNTL6,S100A3,CXCL2,INHBA,SIX1,EGFL6
53	tfdimers-MD00441	0.041232	3.22292	M1	OVOL2,RELA,NFKB1,REL,NFKB2,BCL3,CHURC1,AP3B1,MZF1,EBF1,RELB	IL6,LBP,PGC,CXCL10,UBD,MSX2,OLFM4,TNFRSF9,EPHB1,DUOXA1,CCR8,DEFB4A,GATA4,GIP,FFAR2,CHI3L1,NPSR1,CSF2,PROK2,NOS2,CLDN14,PDPN,STRA6,GABRP,KCND3,INHBA,CLDN2,GNA15,S100A8,LGALS12,VNN3,KYNU,LY6D,CTLA4,EGFL6,GRIN2D,RNF182,ART3,KRT17,RNF183,NMUR2,S100A9,TRIM29,SERPINB7,TFAP2C,IGFBP5,HAPLN3,SAA1,ADAMTS4,CLEC4E,PDE10A,TDO2,S100A3,IL1B,LPL,KCNJ15,CD274,DMBT1,DUSP4,PDZK1IP1,LILRB2,SOCS3,CLDN18,HAS1,DCC,PDX1,CXCR1,DSG3,FCGR3B,PTGS2,MDFI,LCN2,FCGR3A

54	encode-UW.Motif.0643	0.041192	3.21792	M4		LYPD5,GRIN2D,HAS1,KLK10,IL11,KLK6,S100A8,PDPN,FIBIN,S100A3,CLDN14,KLK7,IGFBP5,FCGR3A,TNFRSF9,FOSB,IL1B,THBS2,FCGR3B,DEFB4A,KCNJ15,ART3,LCN2,IL6,C2,GABRP,FCN3,TRIM29,ZBP1,REG4,KCND3,CDH3,ALDH1A2,ALPL,CAA2,VNN3,CLDN18,PLAU,MDFI,SOCS1,KRT7,STC1,NNMT,SOCS3,TFAP2C,TIMP1,TNIP3,KRT80,SLC4A11,NFE2,IL1RN,NPSR1,HABP2,RNF183,HAPLN3,CCR8,GCKR,CLDN2,CSF3R,IL1A,FAP,RNF182,OLFM4,PROK2,OSM,SERPINE1,CTLA4,C2CD4B,CSNK1A1L,UCN2,GBPS
55	jaspar-MA0271.1	0.04104	3.19876	M2	SRF	SERPINE1,PIM2,UCN2,GPR84,WNT2,C6orf223,THBS2,IL11,HAS1,SERPINE1
56	jaspar-MA0099.1	0.040901	3.18126	M2	FOS,FOSB,FOSL1,JUN,JUNB,BATF,FOSL2,JUN,ARNT	FOSB,SLC4A11,GIP,OSM,CLDN1,PROK2,IL11,KLK10,KRT16,ABCA12,RNF182,CLEC4E,LY6D,SERPINE1
57	yetfasco-2236	0.040901	3.18126	M4		GRIN2D,HAS1,IL11,PIM2,S100A8,CEACAM4,UBD,LCN2,KLK6,GABRP,KCND3,MDFI,GATA4,KCNJ15,KLK10,SERPINE1,CLDN14,IL6,LYPD5,SLC4A11,S100A3,CXCR2,EGFL6,LGALS12,KLK7,PGC,LY6D,PLA2G3,NOS2,ALDH1A2,MEFV,NPSR1,CSF3R,KRT16,DUOXA1,FFAR2,S100A9,KRT7,DUOXA2,NFE2,GCKR,KRT80,TRIM29,IL1RN,SERPINE3,STRA6,LAIR2,IGFBP5,CHRDL2,SOCS1,SERPINE1,CSF2,SOCS3,FAM157A,FOXQ1,S100A12,TNFRSF9,FOSB,GZMB,GIP,MSX2,WNT2,KRT17,OLFM4,CLEC4E,VNN3,LILRA5,CFB,PDX1,TNFAIP6,INHBA,AQP5,ABCA12,IL1B,SPINK4,DMBT1,CTLA4,OSM,AQP9,CAA1,TFPI2,WISP1,MMP7



58	homer-M00095	0.040789	3.1671	M13	STAT2,STAT1,IRF8,E2F1,IRF2,IRF1,IRF7,IRF4,IRF6,IRF3,IRF5,IRF9,ZEB1,MYB,CHURC1,ZNF683	OSM,CXCL10,SOCS1,IDO1,CD274,KCND3,CFB,ZBP1,EGFL6,IL6,IL1B
59	elemento-TCATGTC	0.040696	3.15544	M14		TNIP3,PGC,S100A12,CLDN14,SLC4A11,SLC11A1,LILRA5,SERPINB7,SAA2,IL1B,KCNJ15,SERPINB5,MMP1,DMBT1,S100A8,KYNU
60	yetfasco-1516	0.04057	3.13961	M2	MYBL2,MYBL1,MYB,SNAPC4	GRIN2D,HAS1,THBS2,KLK6,IL11,LYPD5,KRT16,SERPINE1,FCN3,CSF3R,S100A3,CLDN14,FAP,KLK7,TRIM29,TNIP3,INHBA,PGC,SERPINA3,IL22,IL6,GABRP,TNFRSF9,IL1B,NFE2
61	taipale-NTTRCGCAAY-CEBPB-DBD	0.040524	3.13378	M7	CEBPB,CEBPE,CEBPD,CEBPG	CSF3R,CYP24A1,PTGS2,SIX1,VNN3,IL1B,AQP9,FOSB,IL6,NFE2
62	transfac_pro-M01673	0.040518	3.13295	M2	SRF	PIM2,SERPINB7,WNT2,C6orf223,GPR84,UCN2,THBS2,IL11,HAS1,SERPINE1,KCND3,TNFRSF9,PLAU,TRIM29,HABP2,FIBIN,ABCA12,LY6D,CD55,CLDN14,GABRP,CLEC4E,FAM157A,SERPINB5,DCC,IL6,MSX2,GATA4,GIP,CLEC5A,TFAP2C,EGFL6,RNF183,CXCR2,CLEC4D,GRIN2D

63	tfdimers - MD00007	0.040432	3.12212	M13	IRF8,E2F1,IRF1,IRF4,MYB,IRF7,IRF5,IRF2,IRF6,IRF9,IRF3,ZEB1,POU5F1,FOS,JUN,FOXM1	OSM,IDO1,SOCS1,IL6,CXCL10,ABCA12,KCND3,SERPINB7,GABRP,PTGS2,MNDA,FJX1,ZBP1,EGFL6,PLA1A,IL1B,GBP1,RNF182
64	homer-M00105	0.040405	3.11879	M2	MAFA,MAFF,MAFK,MAF,DBP,MAFG,JUN,JUND,FOS,FOSL1,JUNB,FOSB,NFE2	CPXM1,ADAMTS4,TIMP1,S100A8,SLC11A1,PADI4,SERPINB5,CSF2,IL6,SLC7A5,TRIM29,WNT2
65	homer-M01835	0.040365	3.11379	M2	SRF	SERPINB7,WNT2,PIM2,GPR84,UCN2,C6orf223,THBS2,IL11,HAS1,SERPINE1
66	homer-M00320	0.040266	3.10129	M1	RELA,REL,RELB,NFKB1,NFKB2,OVOL2,STAT6,MZF1	GATA4,FFAR2,CXCL9,STRA6,S100A3,EPHB1,CLEC4E,GRIN2D,ART3,GABRP,VNN3,TNFRSF8,CCR8,TNFRSF9,OLFM4,UBD,CXCR1,TDO2,GALNTL6,EGFL6,PROK2,INHBA,NPSR1,CSNK1A1L,ABCA12,CLDN14,RND1,FCGR3A,PTGS2,PDE10A,DUOXA1,S100A8,CLDN18,FCGR3B,KCND3
67	selexconsensu-dl-B	0.040266	3.10129	M1	NFKB1,NFKB2,OVOL2,RELA,MZF1,STAT6,RELB	GATA4,FFAR2,CXCL9,STRA6,S100A3,EPHB1,CLEC4E,GRIN2D,ART3,GABRP,VNN3,TNFRSF8,CCR8,TNFRSF9,OLFM4,UBD,CXCR1,TDO2,GALNTL6,EGFL6,PROK2,INHBA,NPSR1,CSNK1A1L,ABCA12,CLDN14,RND1,FCGR3A,PTGS2,PDE10A,DUOXA1,S100A8,CLDN18,FCGR3B,KCND3

68	transfac_pro-M03557	0.0402	3.09296	M1	NFKB1,RELA,REL,OVOL2,NFKB2,EBF1,MZF1,STAT6,RELB	GATA4,PGC,CXCL10,IL6,UBD,CXCL9,ART3,CHI3L1,EPHB1,CCR8,CXCR1,DEFB4A,TNFRSF9,ADAMTS4,FFAR2,CLDN1,CEACAM4,PLAU,S100A3,DMBT1,CXCL3,OLFM4,CXCL2,LBP,PTGS2,TNFRSF8,S100A8,CLDN14,CLDN18,STRA6,RND1,KCNJ15,KLK10,HAPLN3,SERPINE1,PLA2G3,CSF2,AQP5,INHBA,ALDH1A2,GABRP,IL1RN,VNN3,CPXM1,FCGR3B,CLEC4E,FCGR3A,DUOX2,S100A9,RNF183,DCC,KYNU,WISP1,LPL,EGFL6,SERPINB7,MDFI,RNF182,KCND3,PROK2,CXCR2,ABCA12,HAS1,CXCL5,AAA1,FAM83A,SOCS3,HABP2,PDX1,GLT1D1,GALNTL6,CYP24A1,IL1B,CSF3R,NOS2,CXCL6,LILRB2,TRIM29,GIP,SELE,FCAR,TNIP3,CXCL1,PLA1A,NPSR1,IL11,C6orf223,TFPI2,GRIN2D,PDZK1IP1,TFAP2C,THBS2,ENKUR,PDPN,WNT2,CCL11,STC1,KRT80,SELP,MMP1,KRT16
69	hdpi-POLE3	0.04018	3.09047	M15	POLE3	TRIM29,TNFRSF8,SAA1,CLDN14,LY6D,EPHB1,KCNJ15,SOCS3,NMUR2
70	taipale-NCTCGTAAAAA-HOXC13-DBD	0.040147	3.0863	M10	HOXC13,HOXA13,HOXB13,HOXD13	CTLA4,MSX2,WNT2,ALDH1A2,INHBA,KRT16,TNIP3,DUSP4,CLDN2,RNF182,GATA4,PLAU,HABP2,KCND3
71	transfac_pro-M01224	0.040141	3.08547	M1	RELA,OVOL2,CHURC1,AP3B1,NFKB1,NFKB2,EBF1,MZF1,RELB	CXCL10,UBD,IL6,GATA4,PGC,EPHB1,ART3,S100A3,KCNJ15,CXCL9,CSF2,CCR8,PI3,INHBA,LBP,EGFL6,CLDN18,CXCL2,DEFB4A,DMBT1,ADAMTS4,CXCL11,TNFRSF9,OLFM4,WISP1,LGALS12,STRA6,DCC,PLAU,PDX1,CSNK1A1L,CXCL3,S100A8,PROK2,VNN3,IL1B,CXCR2
72	transfac_pro-M01772	0.040061	3.07547	M7	CEBPE,CEBPB,CEBPD,CEBPG,CRX,TBP,CEBPA,HLF,NFIL3,DBP	CSF3R,AQP9,CYP24A1,IL1B,MEFV,VNN3,SIX1,NFE2,PTGS2,FOSB,TNFRSF9,CPXM1

73	elemento-CAGGAGG	0.040035	3.07214	M6		GRIN2D, KLK6, HAS1, GIP, GABRP, KRT17, KRT80, IL11, LY6D, STRA6, SLC4A11, SOCS1, KRT16, PDZK1IP1, KCND3, LCN2, OSM
74	transfac_pro-M03545	0.040035	3.07214	M1	REL, NFKB2, RELA, NFKB1, BCL3, STAT6, EBF1, OVOL2, RELB	CXCL10, UBD, PLAU, GATA4, CSF2, CHI3L1, IL6, TNFRSF9, CXCL2, CXCL3, SAA1, CXCL9, GALNTL6, ART3, PGC, KCNJ15, CLDN14, TFP12, IL1RN, WISP1, CLEC4E, EPHB1, INHBA, SERPINB7, MMP1, CXCL11, DMBT1, DEFB4A, VNN3, CCR8, CXCL1, PDZK1IP1, PROK2, CLDN18, NPSR1, LY6D, IL1B, LBP, KCND3, GABRP, LPL, CYP24A1, PDPN, CXCL5, LILRB2, FFAR2, C2CD4B, RND1, EGFL6, FCGR3A, FCGR3B, CXCR1, OLFM4, S100A9, STRA6, CXCL6, SAA2, HABP2, CLDN1, S100A3, C6orf223, ABCA12, S100A8
75	hdpi-EIF5A2	0.040015	3.06964	M9	EIF5A2	C6orf223, GRIN2D, KRT80, IL11, S100A3, PIM2, KRT16, PLA2G3, STRA6, SERPINE1, CEACAM4, UCN2, LY6D, KRT7, HAS1, CSF2, DEFB4A, TRIM29, LILRA2, GABRP, IL1RN, FOSB, KCND3, HABP2, PDZK1IP1, LYPD5, GIP, PLAU, CXCR2, S100A9, LILRA6
76	transfac_public-M00038	0.039982	3.06547	M2	BACH2, FOS, JUND, FOSL2, JUNB, JUN, BATF, FOSL1, BACH1, SPI1, FOSB, NFE2, JDP2, ARNT, SRF, TGIF2LY, TGIF2LX, TGIF2, TGIF1	GIP, SERPINB7, SLC4A11, KRT16, DUSP4, RNF182, CYP24A1, IL11, AQP5

77	transfac_pro-M01890	0.039969	3.06381	M5	STAT5A,STAT5B,STAT6,STAT1,STAT4,STAT3,STAT2,BCL6	SOCS3,PLA2G3,UBD,GATA4,CCR3,C6orf223,STC1,CXCL11,IDO1,OSM,PLA1A,FAP,IL22,LIPN,GABRP,IL1A,SERPINB5,CYP24A1,TNFRSF9,PDE10A,LPL,TNIP3,EGFL6,KCND3,TDO2,HABP2,THBS2,ART3,SLCO1B3,FFAR2,C4BPA,MLC1,KRT17,ABCA12,GBP1
78	homer-M00189	0.039949	3.06131	M5	STAT6,STAT5A,STAT5B,STAT1,STAT4,STAT3	PLA2G3,SOCS3,STC1,CCR3,GATA4,UBD,IDO1,SLCO1B3,C6orf223,CYP24A1,PIM2,OSM,CXCL11,FAP,EGFL6,TDO2,PDE10A,GBP5,PLA1A,GABRP,GBP1,MLC1,KRT17,IL22,SERPINB5,AQP9,FCGR1A,ABCA12,LIPN,LPL,KCNJ15,TNIP3,SLC4A11,CLDN2,IL1A,INHBA,CXCR2,PLAU,GZMB,CLEC4D,ANXA10,HABP2,CSF2,REG1B,FFAR2,MMP3,CCR8,CLDN14,C4BPA,RNF183
79	jaspar-MA0144.1	0.039823	3.04548	M5	STAT3,STAT4,STAT1,STAT6,BCL6	SOCS3,SAA1,HABP2,CCR3,DUSP4,PDE10A,C6orf223,PDZK1IP1,THBS2,S100A3,AQP9,KCNJ15,UBD,LPL,CFB,GABRP,TNFRSF8,PLA2G3,SELE,NPSR1,LYPD5,KLK6,MMP3,CDH3,CEACAM4,GALNTL6,HAS1,MDFI,CSF3R,STRA6,SLC4A11,STC1,S100A9
80	yetfasco-1299	0.039711	3.03132	M16		IL6,NFE2,C6orf223,GRIN2D,LCN2,CHI3L1,MSX2,UCN2,CYP24A1
81	encode-UW.Motif.0043	0.039578	3.01466	M4	GATA5,GATA3,GATA4,GATA6,GATA1,GATA2,ELK1	TRIM29,HAS1,LCN2,KCNJ15,HABP2,CSF2,SLC4A11,SAA1,GALNTL6,DMBT1,DCC,PDPN,KCND3,SERPINA3,CLDN2,SOCS1,INHBA,CLDN14,DUOXA1,S100A3,DEFB4A,PLA1A,KLK6,HAPLN3,GABRP,TNIP3,RNF183,S100A9,LILRB2,LBP,NPSR1
# Rank	Track id	AUC	NES	ClusterCode	Transcription factor	Target genes

1	wgEncodeAwgTfbsSydhMcf10aesStat3Etoh01bUniPk	0.097272	7.3093	T1	STAT3	VNN3,CXCL2,S100A9,FAP,KYNU,KCNJ15,GBP5,GSDMC,KRT6A,NNMT,S100A8,SOCS3,TNIP3,CYP24A1,ZBP1,PDZK1IP1,SERPINB3,HABP2,SERPINB4,S100A3,CFI,KRT17,SAA1,CXCR2,CD55,CHI3L1,SAA2,KRT7,PI3,LCN2,IL13RA2,TNFRSF9,CFB,CSF3R,CD300E,KCND3,CXCL1,LYPD5,NFE2,TDO2,FAM83A,CSF3,ABCA12,MDFI,IL6,PLAU,PDPN,C2CD4A,CCR3,KRT80,PIM2,GNA15,TIMP1,IL1B,DSG3,CLDN1,S100A12,C4BPA,SERPINA3,SERPINB5,IL1RN,ADAMTS4,KRT6B,TREM1,C6orf223,MEFV,TNFAIP6,PGC,PTGS2,BCL2A1,STC1,CDH3,NPSR1,SERPINB7,IL1A,KRT16,PLA2G3,INHBA,APOL1,CLEC5A
2	wgEncodeAwgTfbsSydhMcf10aesStat3Tam112hHvdUniPk	0.096459	7.2408	T1	STAT3	S100A9,KYNU,KCNJ15,VNN3,FAP,NNMT,KRT6A,TNIP3,GBP5,GSDMC,S100A8,CXCL2,PDZK1IP1,S100A3,SOCS3,CYP24A1,ZBP1,SERPINB4,SERPINB3,CFB,KRT7,IL13RA2,CHI3L1,LCN2,SAA1,CFI,CXCR2,PI3,HABP2,CSF3,LYPD5,CD55,CD300E,CDH3,SAA2,TNFRSF9,NFE2,TDO2,ABCA12,KRT6B,FAM83A,IL1RN,KCND3,ADAMTS4,MDFI,KRT17,MEFV,CXCL1,CSF3R,TNFRSF8,SERPINA3,KRT80,C2CD4A,TIMP1,CCR3,IL1B,GNA15,CLDN1,S100A12,PDPN,IL6,CD274
3	wgEncodeAwgTfbsSydhMcf10aesStat3Etoh01cUniPk	0.096327	7.22966	T1	STAT3	S100A9,KYNU,KCNJ15,VNN3,FAP,NNMT,KRT6A,TNIP3,GBP5,GSDMC,S100A8,PDZK1IP1,CXCL2,S100A3,SOCS3,CYP24A1,ZBP1,SERPINB4,SERPINB3,CFB,KRT7,IL13RA2,CHI3L1,CFI,LCN2,SAA1,CXCR2,CSF3,HABP2,LYPD5,PI3,CD55,CDH3,CD300E,TNFRSF9,SAA2,TDO2,KRT6B,ABCA12,NFE2,FAM83A,MDFI,IL1RN,MEFV,ADAMTS4,CXCL1,KRT17,KCND3,CSF3R,TNFRSF8,SERPINA3,C2CD4A,TIMP1,IL1B,CCR3,KRT80,PDPN,CLDN1,GNA15,CD274,IL6,S100A12
4	wgEncodeAwgTfbsSydhMcf10aesStat3TamUniPk	0.088535	6.57362	T1	STAT3	KYNU,KCNJ15,S100A9,GSDMC,VNN3,FAP,KRT6A,TNIP3,PDZK1IP1,ZBP1,NNMT,LCN2,S100A3,SERPINB3,SERPINB4,S100A8,IL13RA2,CHI3L1,CXCL2,GBP5,SOCS3,CD55,CYP24A1,KRT7,PI3,SAA1,NFE2,CSF3R,CFI,C2CD4A,TNFRSF9,TDO2,KRT17,CFB,SAA2,CXCL1,CSF3,ABCA12,CXCR2,FAM83A,HABP2,LYPD5,CD300E,MEFV,MDFI,CCR3,PTGS2,S100A12,KCND3,SLC7A5,CLDN1,KRT80,TIMP1,CDH3,IL1RN,SERPINA3,IL1B,GNA15,BCL2A1,MMP3,CLEC5A,CD274,KRT6B

5	wgEncodeAwgTfbsHaibA549P300V0422111EtoH02UniPk	0.062668	4.39551	T2	EP300	KYNU,NNMT,SLC7A5,IL11,GIP,KRT7,KRT80,PLAU,MYEOV,RND1,CSF3R,BCL2A1,CLDN14,PTGS2,CXCL2,SERPINE1,C6orf223,CLDN2,TFPI2,S100A3,STRA6,CYP24A1
6	wgEncodeAwgTfbsSydhHelas3P300sc584sc584IgggrabUniPk	0.062575	4.38771	T2	EP300	KYNU,PI3,CXCL2,LCN2,GSDMC,C4BPB,S100A12,KRT7,NNMT,C4BPA,CD55,IL6,KRT80,MYEOV,PLAU,VNN3,PTGS2,STRA6,MEFV,CMTM2,TIMP1,KCNJ15,CSF3R,S100A8,TNFAIP6,SERPINB3,CFB,NFE2,SERPINB7,KRT17,AQP5,SERPINB4,JSRP1,MMP7,SERPINB5,FAP,MMP3,KRT6B,TREM1,GBP5,C2CD4A,CLDN2,SERPINE1,CLDN14,FAM83A,GBP1,IL1B
7	wgEncodeAwgTfbsSydhMcf10aesCfosTam112hHvdUniPk	0.061742	4.31754	T3	FOS	KYNU,BCL2A1,IL13RA2,CXCR2,CCR3,KCNJ15,PLAU,CD55,IL1B,SERPINA3,CD274,CLDN1,CYP24A1,FAM83A,SERPINB7,S100A12,FIBIN,GSDMC,FAP,TNFAIP6,NPSR1,ABCA12,SLC4A11,S100A3,ZBP1,IL1A,SERPINB4,MEFV,PI3,STRA6,GBP5,IL1RN,VNN3,KRT6B,KRT80,CSF3,SERPINB5,CD300E,KRT6A,GIP,MMP1,NNMT,HABP2,CLEC4E,S100A8,TNIP3,MMP10,C2CD4A,PDZK1IP1,TDO2,TREM1,S100A9,TIMP1,CLDN14,KRT7,MMP3,CLDN2,CXCL1,TNFRSF9,SERPINB3,CSF2,CXCL11,HAS1,DSG3,INHBA,CLECSA,ADAMTS4,LCN2,MDFI,RND1,CDH3,UCN2,PTGS2,PLA2G3,CFB,LY6D,SLC7A5,CXCR1,KRT17,LYPD5,SERPINE1,SOCS3,KRT16,IL6,PDPN,TFPI2,SAA1,NFE2,TCN1,MYEOV,DCC,CXCL2
8	wgEncodeAwgTfbsSydhMcf10aesStat3EtoH01UniPk	0.057992	4.00177	T1	STAT3	VNN3,S100A9,KYNU,GSDMC,SOCS3,PDZK1IP1,CFB,KRT6A,NNMT,TNIP3,FAP,CXCL2,S100A8,SAA1,CHI3L1,GBP5,LCN2,PI3,CSF3R,KRT17,MDFI,HABP2,SAA2,S100A3,TIMP1,CFI,NFE2,CD55,PTGS2,SERPINB3,PGC,KCNJ15,PLAU,IL13RA2,TDO2,C2CD4A,CXCR2,CYP24A1,FAM83A,KRT7,HAS1,TREM1,DSG3,CDH3,S100A12,SERPINB5,PDPN,TFAP2C,BCL2A1,C2CD4B,KCN D3,STC1,FCN1,SERPINB7,LILRA5,CSF3,TREML4
9	wgEncodeAwgTfbsSydhHelas3Stat3IgggrabUniPk	0.055373	3.78123	T1	STAT3	CXCL2,GSDMC,KYNU,NNMT,PI3,LCN2,SERPINB4,KRT80,SERPINB3,IL6,CFB,S100A12,KCNJ15,KRT17,KRT7,CD55,VNN3,C2CD4A,S100A9,PTGS2,C4BPB,C4BPA,PLAU,CSF3R,FAP,GBP1,C6orf223,KRT6A,NFE2,STRA6,SERPINE1,S100A8,JSRP1,TNFRSF9,TIMP1,GBP5,SOCS3,SLCO1B3,THBS2,IL1A,IL13RA2,RND1,PDPN,SEMG1,BCL2A1,MMP3,DSG3

10	wgEncodeAwgTfbsSydhMcf10aesCfosTam14hHvdUniPk	0.051755	3.4766	T3	FOS	KYNU,CXCR2,CLDN1,TNFAIP6,S100A12,IL13RA2,SERPINA3,IL1B,KCNJ15,CYP24A1,GSDMC,ABCA12,CCR3,FAP,CD274,GBP5,CD55,SERPINB7,NPSR1,FIBIN,PLAU,IL1A,SLC4A11,BCL2A1,FAM83A,IL1RN,S100A3,TREM1,TNIP3,SERPINB4,GIP,NNMT,PI3,KRT80,VNN3,C2CD4A,MEFV,S100A8,KRT6A,MMP10,CD300E,HABP2,MMP3,KRT7,ZBP1,DSG3,STRA6,INHBA,CLDN2,CXCL1,CXCL11,MMP1,CHI3L1,CDH3,SERPINB3,PLA2G3,SERPINB5,S100A9,JSRP1,MDFI,MMP7,CSF3,KRT6B,CLDN14,CLC4E,TIMP1,TDO2,CSF2,TNFRSF9,CLEC5A,HAS1,PTGS2,CFB,LCN2,IL6,CXCL2,KRT17,CSF3R,PDZK1IP1,FJX1,DUSP4,OSM,CXCR1,STC1,SAA1,UCN2,LY6D,MYEOV,NFE2,CMTM2,AQP5,RNF182,SAA2,PDX1,CXCL9,ADAMTS4,RND1,CLDN18,TCN1,TRIM29,THBS2,LYPD5
11	wgEncodeAwgTfbsHaibA549Tcf12V0422111Etoh02UniPk	0.048679	3.21763	T4	TCF12	KYNU,NNMT,GIP,KCNJ15,IL11,SLC7A5,CXCL2,CSF3R,MYEOV,CLDN2,KRT7,PLAU,PTGS2,SERPINE1,KRT80,RND1



