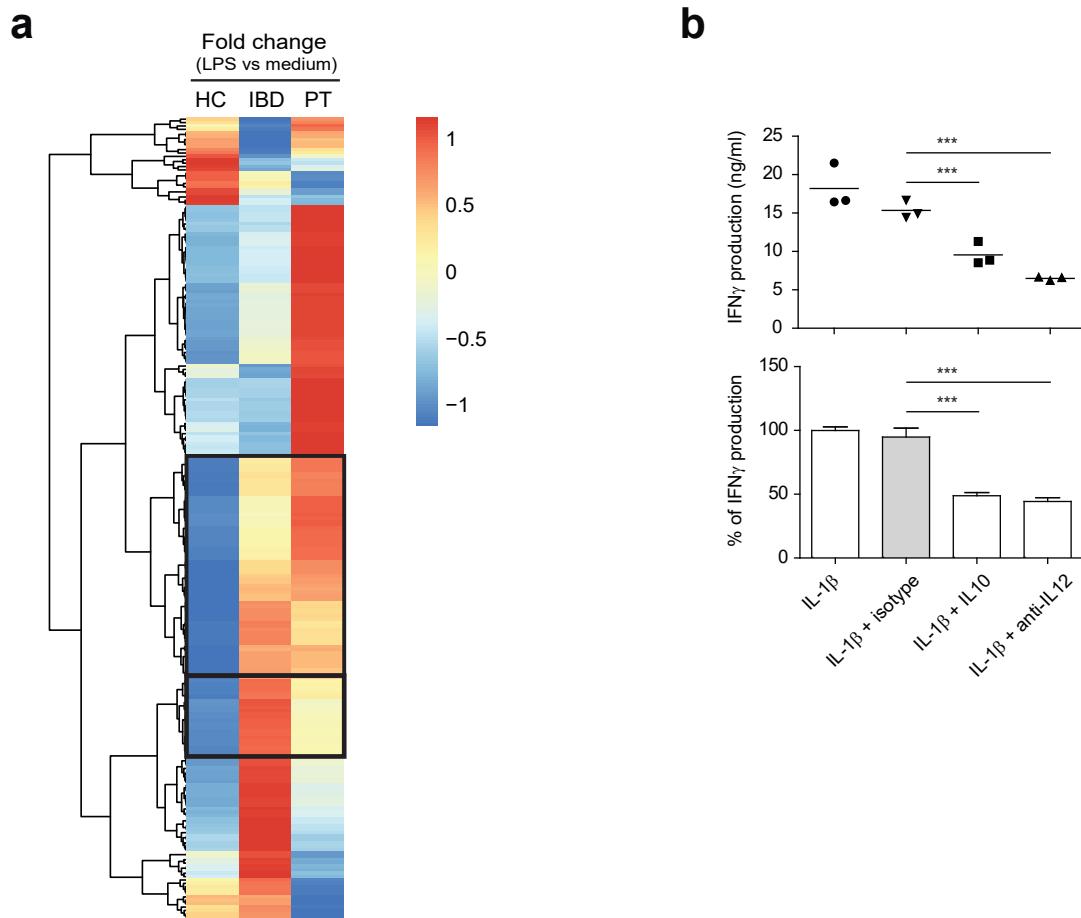
**Supplementary Figure S1.** IL-10 cannot inhibit IFN γ secretion by CD4+ T cells in a direct manner.

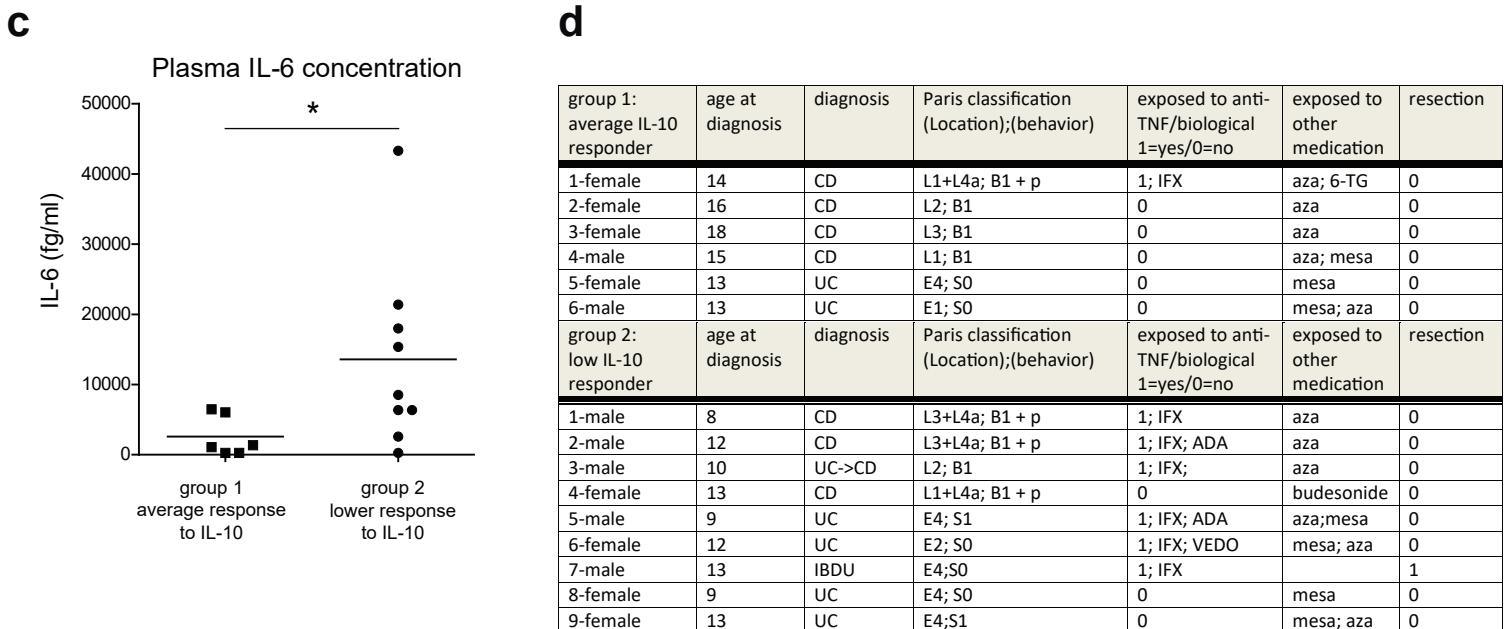
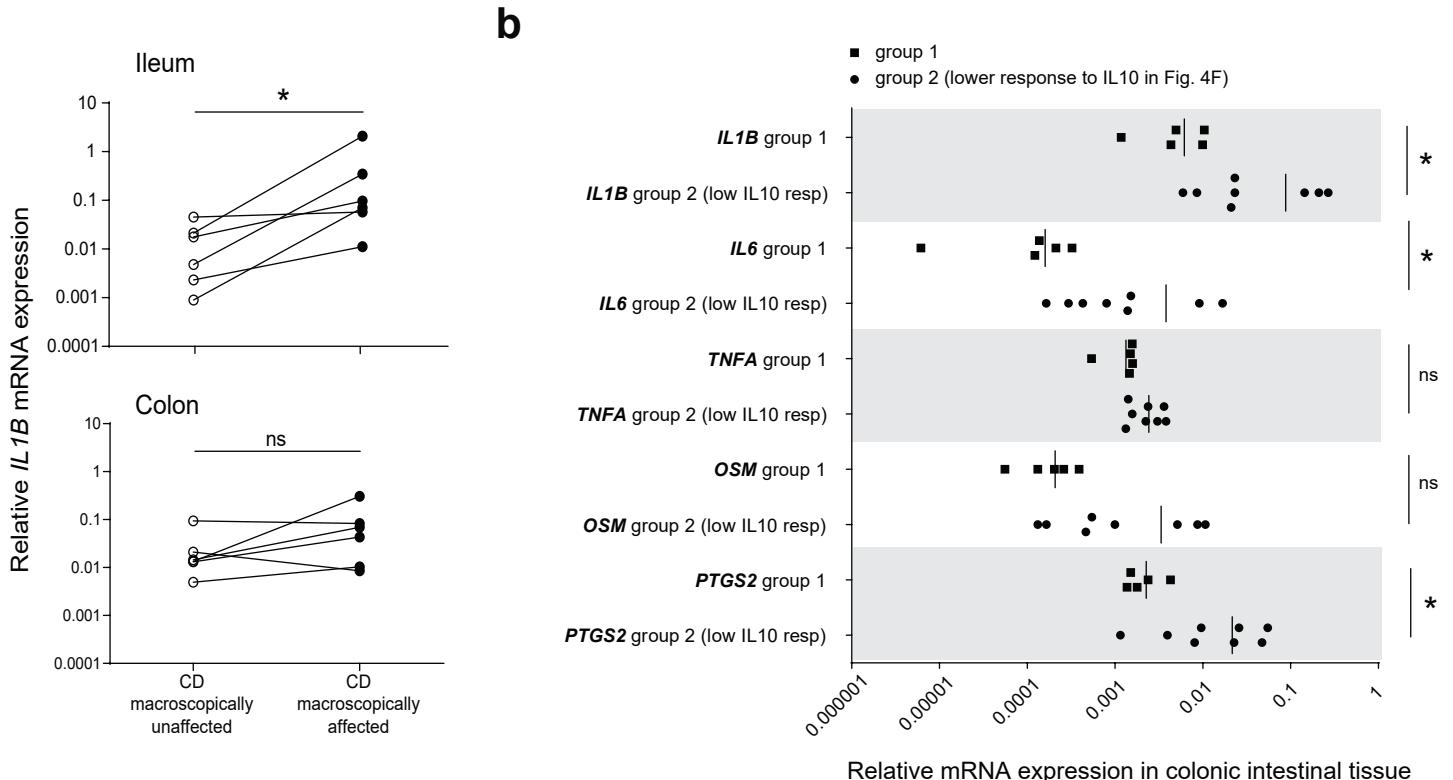
(a, b) CD4+ T cells from adult healthy controls ($n=4$) were stimulated with (a) anti-CD3/CD28 beads (bead-to-cell ratio 1:4) or (b) plate-bound anti-CD3 antibody (0.1, 1, 10 $\mu\text{g/ml}$) in the presence or absence of IL-10. After 24 h or 48 h, supernatants were assayed for IFN γ using an ELISA. (c) Monocyte-derived DCs from an IL10RA-deficient patient or healthy controls were preincubated with LPS or LPS/IL-10 for 24 h. Allogeneic MLRs were performed by co-culturing moDCs and CD4+ T cells with or without IL-10. After 72 h, supernatants were assayed for IFN γ using an ELISA. (d) Representative dotplots of data shown in Fig.1e. CD14+ monocytes and T cells were analyzed by flow cytometry for expression of IL-10RA and IL-10RB chains (gated on singlets).

Results are mean \pm SEM (a, b) or mean \pm SD (c) of a representative of at least 2 independent experiments. *** $P<0.001$ using unpaired Student's t test.



Supplementary Figure S2. (a) Gene expression profile of dendritic cells from pediatric IBD patients partially overlaps with *IL10RA*-deficient dendritic cells. Heat map of differentially expressed genes showing color-coded fold change between LPS stimulated and unstimulated moDCs from healthy controls (n=3), *IL10RA*-deficient patient, and pediatric IBD patients (n=3).

(b) IL-1 β stimulates IFN γ release by human CD4+ T cells indirectly through induction of IL-12 production (data related to Figure 3 of the manuscript). Allogeneic MLRs were performed using moDCs and CD4+ T cells from healthy individuals. SEB was added in the presence of IL-1 β , with or without IL-10, neutralizing IL-12 antibodies, or isotype control. After 72 h, supernatants were assayed for IFN γ using an ELISA. Top graph depicts 1 representative experiment of n=3. Bottom depicts combined data of n=3 experiments where IFN γ production is expressed as percentage relative to the IL-1 β condition (100% in each experiment).



UC, ulcerative colitis; CD, Crohn's disease; IFX, infliximab; ADA, adalimumab; VEDO, vedolizumab; aza, azathioprine; mesa, mesalazine; 6-TG, 6-thioguanine.

Paris Classification: CD-Disease location: (L1) involvement of the terminal ileum only, with limited or no cecal disease; (L2) colonic involvement only; (L3) involvement of both the terminal ileum and colon; (L4) isolated upper GI disease, defined as macroscopic and/or radiologic abnormalities proximal to the terminal ileum. Isolated upper GI disease (L4) is further separated into esophagogastrroduodenal disease (L4a), jejunal/proximal ileal disease (L4b), or both L4a and L4b. Upper GI disease (i.e. L4a, L4b, L4ab) can also coexist with L1, L2, or L3.

CD-Disease behavior: is registered as the presence of strictures, intraabdominal fistulas, and/or intraabdominal abscesses and categorized disease according to the Paris classification: (B1) non-stricturing, non-penetrating disease; (B2) stricturing disease; (B3) penetrating disease (excluding isolated perianal or rectovaginal fistulas); (p) perianal disease. UC-Disease location: (E1) proctitis only; (E2) left-sided colitis, inflammation distal to the splenic flexure; (E3) extensive colitis, inflammation proximal to the splenic flexure but distal to the hepatic flexure; and (E4) pancolitis, defined as inflammation extending proximal to the hepatic flexure.

UC-Disease behavior: (S1) has experienced acute severe colitis; (S0) has not experienced acute severe colitis.

Supplementary Figure S3. Enhanced *IL1B* expression and suboptimal IL-10 function in pediatric IBD patients.

(a) *IL1B* mRNA expression was measured in biopsies from macroscopically affected intestine (closed symbol) and biopsies from unaffected regions (open symbol) derived from treatment-naive CD patients. Paired samples per individual patient are shown. (b) mRNA expression was measured in biopsies from group 1 and group 2 (lower response to IL-10) patients analyzed in Fig. 4f. (c) IL-6 concentrations in plasma of group 1 and group 2 (lower response to IL-10) patients analyzed in Fig. 4f. (d) Patient disease characteristics of group 1 and group 2 (lower response to IL-10) patients analyzed in Fig. 4f.

Supplemental references referred to in Methods:

51. Trapnell C, Pachter L, Salzberg SL. TopHat: discovering splice junctions with RNA-Seq. *Bioinformatics (Oxford, England)* 2009; **25**(9): 1105-1111.
52. Trapnell C, Williams BA, Pertea G, Mortazavi A, Kwan G, van Baren MJ *et al.* Transcript assembly and quantification by RNA-Seq reveals unannotated transcripts and isoform switching during cell differentiation. *Nature biotechnology* 2010; **28**(5): 511-515.

tracking_id	Healthy Controls												Inflammatory bowel disease patients												<i>IL10RA</i> -deficient patient		logFC (PT_LPS/PT_unstim)	logCPM (counts per million)	PValue	FDR			
	HC1_unstim	HC1_LPS	HC2_unstim	HC2_LPS	HC3_unstim	HC3_LPS	IBD1_unstim	IBD1_LPS	IBD2_unstim	IBD2_LPS	IBD3_unstim	IBD3_LPS	PT_unstim	PT_LPS	logFC (PT_LPS/PT_unstim)	logCPM (counts per million)	PValue	FDR															
CMPK2	8.28462	170.59	3.91011	234.745	2.91962	220.241	5.64159	244.814	5.7875	249.077	2.43537	241.427	1.73704	282.617	7.329336061	8.456803978	1.00414E-09	1.69315E-05															
IL12B	1.99472	139.946	2.52815	551.64	1.09036	905.861	0.583326	535.264	0.208481	321.021	2.08817	1188.28	0.796262	1245.66	10.5986027	10.54995098	1.77445E-09	1.69315E-05															
IL8	1.47838	174.614	9.29087	923.455	3.77777	1400.42	2.09274	552.801	2.30063	627.965	5.2537	561.494	7.59637	2218.94	8.187815267	10.87455864	3.63314E-09	2.4343E-05															
IL2RA	2.02511	21.3285	2.00383	85.7318	0.602627	37.1544	0.497805	93.6372	0.310094	44.0758	0.305028	31.5818	0.0647704	68.1972	9.941616151	6.849537448	6.95259E-09	3.31152E-05															
IGCH1	1.06736	101.155	0.624818	107.441	1.58384	324.266	0.72337	254.95	0.521104	140.148	1.97782	250.509	1.4361	341.411	7.892843632	8.822916238	9.40048E-09	3.58196E-05															
GBP5	4.31311	156.852	5.34242	241.239	4.12013	181.925	7.05741	510.597	3.24626	309.74	3.1358	346.742	283.333	6.346923793	9.263179212	1.36594E-08	4.3373E-05																
HERC5	2.459	132.591	1.46792	206.02	2.07946	255.035	3.15648	310.101	2.30222	194.984	0.883408	187.578	1.22088	240.096	7.612929321	8.809834134	1.69063E-08	4.6014E-05															
IDO1	8.78675	417.533	2.61067	683.778	4.84586	727.883	2.79992	1337.41	2.56386	508.59	3.13198	973.858	2.5962	1360.92	9.028447746	10.36884448	2.63164E-08	6.26725E-05															
CXCL10	0.933688	112.087	1.24918	2666.28	0.721847	1942.87	1.29245	3334.76	0.682744	1454.95	3.54997	3776.3	1.25077	2719.47	11.07100718	10.59718287	8.16024E-08	0.000172743															
CFB	1.68546	74.9856	1.86127	103.661	1.77782	140.199	2.41863	280.854	5.34691	344.682	3.40021	213.657	1.93193	128.173	6.046278238	7.466694691	1.03526E-07	0.000197233															
DDX58	7.41079	316.037	6.76623	474.405	5.8043	500.557	8.17065	641.447	7.42127	401.027	2.89581	314.894	9.75315	575.472	5.880252492	10.54442841	1.14962E-07	0.000199115															
MCOLN2	11.9283	72.8567	15.0701	175.784	14.3921	248.826	6.83454	231.336	5.56241	156.747	8.59947	154.488	8.9296	222.339	6.36592378	8.525316579	1.49962E-07	0.000234464															
IFI13	19.8136	126.52	8.43754	119.941	7.4065	126.21	1.78187	34.7479	2116.53	7.75625	1599.57	11.8134	1628.35	7.104927402	11.0222959	1.60564E-07	0.000234464																
IL1B	15.9829	136.771	36.3603	257.98	21.816	288.816	9.11188	230.112	15.6888	3082.94	45.5178	964.22	14.3804	763.23	9.050455338	12.44138633	1.72291E-07	0.000234464															
IFI44L	2.0609	75.9017	0.76707	153.714	0.429261	186.201	2.45213	188.886	1.60398	136.524	1.69206	83.4744	0.499117	183.549	8.51352221	9.192044285	2.40323E-07	0.000237167															
PDE4B	1.14035	14.0707	1.7322	40.1181	1.101	34.6159	0.790558	53.7205	1.94624	36.3534	1.30896	63.2904	2.1449	131.111	5.928073437	8.103557644	2.45187E-07	0.000231367															
DDX60	3.11665	47.072	2.6048	73.7511	3.4851	72.6714	4.28868	113.708	1.61875	57.2071	1.47104	50.803	1.75422	68.7645	5.288729873	7.857818075	2.497E-07	0.000237167															
EREG	0.675609	16.2128	1.00504	28.7771	0.714368	48.1869	1.00385	35.4144	0.541499	23.3	1.03600	31.3929	0.860157	69.7557	6.334469218	7.452386106	2.58083E-07	0.000237167															
OAS3	8.58228	167.954	5.69021	236.709	6.98077	185.543	12.3174	268.58	9.03897	231.594	11.4558	261.721	4.27714	197.523	5.526311549	9.504694648	2.8931E-07	0.000277744															
PARP14	45.3236	411.363	39.4068	568.469	52.2405	720.549	42.6087	792.853	30.3352	563.173	22.8825	508.789	33.5102	764.927	4.510291045	11.71325463	3.14386E-07	0.000277744															
CCL1	0.115158	66.0161	1.52188	151.97	0.314327	153.312	0.331249	79.3266	1.44533	208.596	0.136684	88.9808	0.572664	88.8519	7.186852164	8.728789434	3.21099E-07	0.000277744															
IL15RA	1.60472	88.575	1.86166	97.2408	0.901437	69.3594	0.643528	134.133	0.732031	140.576	3.30913	286.664	0.472716	188.298	8.638859914	9.287894344	3.21099E-07	0.000277744															
CCL20	0.179329	41.4616	0.30599	160.445	1.65253	458.782	0.131733	164.391	0.127808	147.735	0.848409	343.977	0.99507	53.586	9.051677865	9.594977585	3.39571E-07	0.000277744															
ELOVL7	1.23782	12.7537	0.752417	17.4175	0.528	14.507	0.834505	31.7419	0.895871	21.9939	1.6631	33.3113	0.941681	40.7774	5.433057659	6.410556577	3.49877E-07	0.000277744															
HERC6	2.66324	46.5263	2.15795	78.028	2.92419	83.7858	3.34351	96.156	2.82081	83.3675	1.84529	57.7233	2.85088	90.3456	4.984246449	7.575341715	3.98941E-07	0.000304025															
IFI12	11.4341	815.788	3.82584	782.753	1.79597	91.748	9.60049	114.125	8.26707	92.108	2.00618	81.981	3.49775	94.619	8.076047012	10.77545332	4.58752E-07	0.000336159															
GBP4	1.84152	85.7592	1.13638	127.678	0.984902	86.7133	0.9856	191.72	0.43737	91.4466	1.08619	139.694	0.73918	95.9952	7.014233868	7.577363015	5.3038E-07	0.000277744															
USP18	1.78187	112.536	0.973316	132.708	0.652027	128.67	1.42496	166.996	1.81715	93.234	0.239739	175.675	1.22234	184.359	7.225879736	7.577363015	5.3038E-07	0.000277744															
CXOL1	0.0391699	18.4554	0.201502	141.925	0.540597	480.811	0.02285148	111.117	0.421178	288.445	0.714118	108.196	0.75662	101.186	8.3227	267.537	9.1131843	5.314394	0.000349173	5.314394E-07													
RSAD2	25.4073	107.731	13.9299	158.347	10.9554	204.574	2.32732	71.1752	0.72744	98.1816	7.04385	79.768	10.4121	74.0568	6.177705021	6.556471E-06	6.556471E-06	0.00274517															
TRIM22	10.1125	70.3008	11.3631	118.247	14.4342	193.933	22.5277	190.45	12.4487	179.914	3.733709	133.732	8.05798	199.502	4.626956937	8.392557395	6.5782E-06	0.00274517															
IL7	0.854137	84.86363	0.326983	9.81024	0.400837	9.11266	0.341448	15.0856	0.436382	8.27637	0.187751	12.9793	0.280109	8.46737	4.928632496	3.144024044	7.06586E-06	0.002813964															
PMAIP1	5.53477	37.1316	4.43845	94.1165	3.63134	71.7602	3.14481	126.351	0.797424	61.9391	4.08785	105.216	3.01102	95.8345	4.987526985	6.587025484	7.08956E-06	0.002813964															
APOL3	2.5687	98.7177	4.05862	103.271	4.78903	97.9219	6.7578	293.784	5.28226	226.203	11.7149	179.294	3.05267	162.09	5.468632127	7.510652382	7.46120E-06	0.002901038															
ABTB2	2.13041	31.6771	3.82732	33.3425	1.06935	17.7107	0.844645	58.6178	2.40612	34.5532	2.91627	63.125	0.62296	33.687	5.748299735	6.497950																	

PT.LPS-vs.PT.unstim

UBE2L6	33.6059	275.257	30.3464	246.187	42.4375	246.226	35.2486	287.899	39.5067	419.165	42.1091	266.275	31.7841	305.846	3.26637065	7.649680867	3.01363E-06	0.007176722	
NEURL3	0.511471	25.7904	0.683452	45.2833	0.495176	47.0774	0.0755936	42.3528	0.662849	116.287	0.299574	32.0688	0.430611	53.9957	0.93925364	5.491174567	3.18513E-05	0.007315292	
NUB1	68.3566	346.964	54.7166	410.258	33.2516	265.328	35.6635	473.079	28.0409	384.806	31.7423	316.323	26.5677	292.179	3.457450396	9.034245309	3.1962E-05	0.007315292	
MAP3K8	4.02608	17.0705	3.93225	25.0346	4.32118	46.7269	3.85524	38.767	2.06738	14.5288	4.41152	67.9522	3.84857	55.2019	3.862097595	6.524296766	3.21085E-05	0.007315292	
SLAMF1	1.02386	19.3963	2.31051	69.1317	2.80523	98.5511	0.463904	55.1629	1.4693	163.999	1.44312	41.1681	1.3562	87.3773	6.000617959	6.484327198	3.2253E-05	0.007315292	
TRIM25	12.0094	97.9526	12.8833	110.504	15.4053	13.32	118.444	15.0018	140.163	14.5559	135.549	12.7706	128.517	3.326849047	8.777350399	3.292E-05	0.007378724		
LOC731424	2.95904	68.3344	2.20001	60.3014	7.48642	156.281	0.784315	80.4004	3.50507	210.44	4.91415	146.099	4.43961	147.354	5.04957699	8.083447373	3.39502E-05	0.00749211	
TDRD7	14.9253	83.4482	13.9014	92.2454	18.1716	116.928	12.5785	117.014	8.15544	81.2553	6.7151	83.2499	12.4414	115.935	3.217825444	8.001756563	3.4232E-05	0.00749211	
TNFAIP6	1.08152	179.489	2.31217	372.351	3.11728	123.23	2.53052	153.74	0.499604	406.533	14.1646	145.35	6.22805	1612.59	8.013423905	10.11668205	3.46056E-05	0.00749211	
IRF7	2.10088	36.1961	1.02149	27.827	0.804086	29.673	2.29487	30.8213	4.374	70.4026	2.5538	58.1796	1.4206	36.4738	4.673385739	5.160850089	3.6865E-05	0.007891601	
KCNQ3	0.035528	0.044098	0.0494879	0.273907	0.0640964	0.231918	0.058157	0.24519	0.0805086	0.190267	0.0746679	0.247949	0.0279003	1.52006	5.701173427	3.186282615	3.87128E-05	0.008195078	
STAT1	42.4661	323.136	27.532	318.2	51.5636	345.03	41.1623	42.7067	30.1108	308.469	27.5222	278.017	33.203	320.232	3.188084149	9.430661118	3.9311E-05	0.008230265	
ADORA2A	0.158648	4.17911	0.508231	14.9245	0.0219748	5.20777	0.14111	20.034	0.0515838	18.6572	0.273861	28.9604	0	11.7504	10.99941102	3.961072216	4.05205E-05	0.008391275	
PNPT1	4.46643	27.6765	4.18368	53.0907	6.1225	88.8312	4.04137	59.6606	2.80279	49.3658	2.20526	38.8031	5.05144	68.1896	3.751938212	7.488109257	4.80646E-05	0.008946516	
CD80	26.9651	145.991	30.1584	291.673	21.5036	235.288	22.9096	439.533	12.1852	208.459	5.04439	193.152	23.4174	333.586	3.830517439	8.98290865	4.88728E-05	0.009905692	
IL1A	2.96888	39.126	4.58598	144.276	9.84667	402.657	1.42723	150.072	0.745423	97.4968	3.8574	532.745	5.12021	806.106	7.295585077	5.15263E-05	0.010245692		
BRIPI1	1.42903	15.9447	1.30052	23.6855	1.42372	24.3759	1.46715	34.5567	0.662865	11.1044	1.03957	16.0436	0.931623	20.542	4.457869448	6.58214168	5.16234E-05	0.010245692	
DUSP5	9.28854	119.725	10.8891	151.122	14.4735	165.424	5.86535	141.933	15.0817	211.163	8.43202	139.042	12.5674	211.2	4.068894948	8.189142259	5.63597E-05	0.01106274	
RNF213	44.7205	387.826	34.0103	330.728	37.8932	241.644	32.8556	472.566	27.8598	307.497	40.8476	42.501	28.8614	336.076	3.534415164	12.00531629	5.69047E-05	0.01106274	
ARHGAP18	68.2143	14.2775	94.8055	13.3843	74.3161	14.6409	76.0028	9.88732	43.9471	9.40385	26.804	7.67551	7.1454	3.135611547	7.014641492	5.89339E-05	0.011341498		
CD40	29.3855	367.548	64.1272	626.417	42.9198	495.326	25.2317	579.997	82.527	91.4746	39.0428	50.2701	54.283	3.447322953	8.85450739	6.1708E-05	0.011756603		
THBS1	8.8959	12.6886	0.348627	9.43646	2.1879	23.6374	0.625984	10.643	0.552391	16.5179	1.08521	10.3114	0.0786133	6.25023	6.267521377	4.308658684	6.34656E-05	0.011971743	
CKB	4.62811	29.0836	3.18042	41.8759	2.5337	35.9395	2.66132	43.8666	2.91627	75.7198	8.73651	94.5299	2.01985	62.8245	4.951093773	5.514391433	6.51786E-05	0.012174342	
PLAT	0.224779	11.6373	0.251377	24.7834	0.0549633	14.9511	0.176553	28.6672	0.0143407	13.5674	0.0618383	41.9174	0.206718	21.74	6.729803023	5.170460018	6.80284E-05	0.012583272	
TAP1	14.9048	137.148	18.1956	153.453	9.2878	75.1192	13.3391	159.58	13.2708	166.981	20.3595	153.238	9.60095	107.637	3.484529298	7.497834359	6.93325E-05	0.01270118	
MGC39372	1.44184	37.6672	1.23277	27.6202	0.497735	18.9448	0.21241	11.1443	0	7.88426	0.211456	17.5282	0	9.93345	9.589720395	2.550235906	7.09045E-05	0.01286545	
GK	4.92263	16.4788	4.66646	24.6911	6.64996	30.9976	3.94943	26.5572	3.29964	21.4918	4.29751	26.643	5.34084	39.6627	2.81593899	6.574573598	7.36452E-05	0.013236691	
APOBEC3G	4.56503	53.0791	4.81541	55.5795	3.60468	39.124	4.94481	59.9152	1.52027	30.0772	7.64037	74.9045	2.21247	35.5407	3.99073019	5.111161241	7.50219E-05	0.013249671	
IFTM3	8.0589	374.422	11.2987	348.787	1.70808	119.425	5.47908	239.536	7.36817	513.147	1.57222	279.6	1.35951	238.642	7.427579484	5.976285546	7.51084E-05	0.013249671	
APOL6	5.85916	37.3337	4.43382	60.5983	8.53713	66.558	4.98923	71.4309	4.0331	68.5802	50.2072	6.78873	70.9913	3.38278895	8.758297909	7.71156E-05	0.013478966		
CCNA1	13.7065	85.0074	5.85858	106.044	16.2623	162.491	6.98901	133.647	11.4832	125.516	9.58503	156.191	12.71719	15.5028	4.081397927	7.71623949	8.35071E-05	0.014440228	
EIF2AK2	13.7662	92.982	9.10247	51.15058	8.45919	137.008	14.353	160.848	9.94938	126.357	5.0362	84.37347	6.56487	103.425	7.91245278	8.41434E-05	0.014440228		
TNP13	0.254806	20.467	0.394598	47.9728	1.05688	458.085	0.414408	191.708	1.28529	443.675	1.60604	219.515	1.52087	163.922	6.744471458	7.681821244	8.92183E-05	0.015176675	
C15orf26	0.0823786	0.616686	0.0709591	1.72328	3.85001	0.35051	0	1.98571	0.0643515	1.38236	0.3053551	51.1468	6.825196266	1.995942154	9.16519E-05	0.015340091			
SHB	2.37448	0.662936	2.41047	0.429512	0.33594	0.442268	1.70315	0.214146	4.13193	0.651049	3.47071	0.261736	3.09521	0.166152	4.202599735	3.412507964	9.17893E-05	0.015340091	
OASL	1.38821	128.692	0.862304	132.263	0.276225	0.276225	1.4361	174.558	1.98105	122.228	1.79769	214.817	0.232331	69.7624	8.147470984	6.175785602	9.61038E-05	0.01530968	
CCL3L3	0.134185	68.4197	0.170915	52.9535	0.73736	14.7124	0.244757	38.377	0	1.20797	0.632679	6.7067	0	146.86	12.60052968	5.562655512	9.69672E-05	0.01530968	
RARRS1	0.943394	3.32457	0.287888	3.91595	0.574915	11.4093	1.69946	28.9943	2.18125	17.0318	0.60097	17.8808	1.30516	41.6313	5.030351994	4.982096408	9.72194E-05	0.01530968	
FAM49A	2.25915	25.9596	2.72021	61.0615	2.69519	32.3046	2.15359	61.1298	1.79636	27.4021	2.93073	36.827	4.37108	48.765	3.476838479	7.066136994	9.88939E-05	0.015966433	
SERPINB1	15.6586	66.6081	14.2957	97.4586	16.2577	96.078	19.8991	18.9991	10.8554	99.7388	16.9764	126.685	14.7918	117.531	3.000108805	7.512847936	0.000119805	0.017419804	
APOBEC3A	0.794936	74.4349	0.576361	198.417	0.48329	112.346	1.68233	291.374	1.16493	241.921	1.78959	346.442	0.903425	253.675	8.121538963	7.413862278	0.000122532	0.018933398	
GBP2	17.8652	117.433	15.1571	142.972	43.5362	248.397	25.0681	45.50748	50.4758	28.7076	20.0738	40.2148	33.055	28.0816	3.226432941	8.610177661	0.00017508	0.026044685	
LYN	39.1683	148.937	36.3826	205.939	38.4329	187.281	34.6147	273.168	32.2424	186.519	29.288	209.229	31.8911	188.402	2.559174694	8.923085266	0.000176347	0.020260839	
WNT5A	1.28404	4.67844	0.840974	20.02202	29.8389	1.39114	19.998	1.4797	14.1472	0.103661	5.25271	38.9833	4.30975	24.3541	41.6387	3.866245863	6.833677455	0.000177821	0.00014181
CARD9	5.61261	1.24573	0.48864	0.934864	3.8172	0.645394	6.2878	0.39268	1.65055	6.11108	0.527762	2.4132	0.0374398	-5.97567386	1.398144552	0.000181163	0.0230		

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SERPING1	0.870351	72.1422	0.443194	51.3972	0.946684	18.2931	1.36332	75.6466	1.03744	54.151	1.22991	62.6594	0.938336	36.2233	5.287456617	5.100107506	0.000364646	0.043150571	
CCL6	0	32.727	0.185945	67.8265	0.349067	221.135	0.452237	169.32	0.62167	211.176	0.0847473	87.9884	0.930942	281.829	8.222040117	7.378306236	0.000368069	0.043286786	
SGPP2	0.721177	68.1191	1.33431	58.7067	1.25752	42.0241	1.453	79.3415	0.897764	51.7801	9.71097	83.8874	2.34611	67.0604	4.629170951	5.281523481	0.000378618	0.044254227	
XRN1	11.4337	64.0701	12.4346	106.248	18.3658	158.116	11.5467	151.596	7.24118	92.5769	5.63176	77.2601	14.6474	150.118	3.355122581	9.828923656	0.000382225	0.044403391	
FAM186B	0.0952605	2.03656	0.168127	2.63032	0.017916	1.3983	0.050468	3.24184	0	1.70202	0.127309	2.63946	0.0177235	1.82649	6.348234831	1.521798123	0.000399204	0.046094763	
CCL15	0.0418282	67.0611	0.571919	21.8843	1.13336	172.212	0.254279	70.2574	0	22.6197	0.838998	173.996	0.582372	126.487	7.727535356	5.969706564	0.000409527	0.04700181	
RIPK2	8.60837	44.9557	10.9012	72.8568	13.2755	107.791	9.49547	84.5621	8.08516	65.2709	8.61497	88.371	14.1919	141.757	3.318263254	7.703028039	0.000413956	0.047225659	
DCP1A	11.3353	55.3514	13.3994	62.6466	12.833	52.6508	10.464	70.9659	10.6527	65.5068	10.8113	67.0269	13.5156	75.5912	2.481215168	8.182546234	0.000420539	0.04769115	
TRIM31	0	4.52614	0.0177936	3.18573	0.0855159	4.57342	0.0152425	1.187	0	8.27186	0	4.89496	0	4.3001	9.178078982	2.13797899	0.000438928	0.049481953	
PPP3CC	8.82109	30.1914	9.62465	37.3933	11.5118	45.3846	8.56973	52.9807	7.43023	38.1268	6.6456	51.7428	10.1386	64.2088	2.662774631	6.459504293	0.000443569	0.049495881	
MIR155HG	0.356034	7.77128	0.612761	50.39	0.943204	43.5801	0.481745	37.3398	1.1518	15.8857	0.347768	18.1117	1.49585	52.74	5.129416184	5.274848044	0.000444247	0.049495881	
TNFAIP2	22.3351	159.296	19.2873	208.673	12.5802	115.739	17.5459	199.582	30.7065	219.733	33.91	231.207	11.302	102.931	3.184680447	7.990795614	0.000461248	0.051091243	
LINC00158	0	0.666794	0	2.82393	0	4.64052	0	3.276	0	0.866115	0	2.78206	0.0382948	9.23399	7.561052517	2.728899433	0.0004645005	0.05109952	
TAP2	9.51658	28.6412	12.4384	46.1936	8.2052	33.8347	7.79299	37.1392	5.82132	37.3235	4.35748	29.0614	5.88459	39.8056	2.766758711	7.115495153	0.000469961	0.05145799	
BCL2L14	1.2925	24.1179	0.67415	16.4703	0.80171	22.6725	0.214695	5.242425	0	4.42123	0.366139	31.8529	0.115757	14.2078	6.860786747	3.778202263	0.000474251	0.051631009	
IIFT5	3.26961	33.2566	3.41476	53.6107	5.0067	55.1432	5.79388	52.8469	4.09231	47.1213	1.3117	48.8017	6.67404	63.9286	3.257209636	7.244504678	0.000485447	0.05284963	
CXCL3	3.39065	0.0339389	6.29228	18.8234	0.147571	6.55596	0	17.3762	15.16251	15.3262	0.356788	60.0357	7.338978631	5.020451615	0.000499013	0.053411179			
CGN	0.022876	1.85805	0.106022	2.0503	0.0317264	1.24916	0.0623311	2.61156	0	1.02625	0.0712684	2.39561	0	0.937159	8.405404461	1.363572688	0.000502202	0.053452225	
FGD5	6.76752	2.26243	10.0115	1.81346	9.15993	2.80909	6.75145	0.773146	15.4971	1.99569	13.2978	1.37315	9.37637	1.16715	-3.005631666	5.074139698	0.000506789	0.05364078	
WTAP	14.6009	52.3729	18.3532	104.805	18.2643	115.0	15.3337	146.474	18.2587	129.487	10.8385	88.9996	19.4142	121.112	2.61962953	6.982707023	0.000516194	0.054334382	
TNIP1	47.5245	269.351	43.803	233.678	31.5654	157.132	33.6932	353.591	58.9716	397.917	100.554	506.964	29.4726	266.554	3.185374819	8.598055782	0.000553383	0.055882329	
HHEX	4.08618	7.93419	5.52714	0.212633	5.18438	0.491388	7.57912	0.856822	4.12783	5.04049	5.569449	5.07672	0.155904	-4.957601989	2.192909061	0.000542433	0.056472277		
IFI6	46.4375	76.347	19.0321	740.075	16.2727	83.7412	99.1916	68.156	226.565	30.8894	783.939	16.1501	602.966	5.222498757	7.786244519	0.005781766			
TRIM69	0.647026	18.1762	0.186036	3.94191	0.384322	1.76844	0.26203	3.16275	0.299762	3.44281	0.217358	2.75551	0.200407	4.33429	4.588941282	2.102655982	0.000554511	0.057106589	
TMOD2	0.885201	0.841522	0.5936308	2.12627	0.349925	1.66457	0.26875	3.1702	0.238787	2.30751	0.112874	1.02821	0.206465	2.751742	3.724142201	3.896105754	0.000562017	0.057567502	
C1QTNF1	0.0895004	0.797303	0.0129152	1.22105	0	0.740237	0.0442352	3.04403	0	2.4954	0	2.76388	0	1.86092	8.479192789	1.437567448	0.0005378579		
TNFAIP3	11.3683	79.319	13.6709	110.076	9.35011	80.091	6.09508	139.03	11.7572	125.183	23.3361	178.878	15.3366	134.181	3.127178179	8.555977166	0.00059264	0.060058431	
PER3	12.2953	4.82119	11.5948	3.29249	3.18686	3.91764	11.9256	1.99337	9.70393	2.13493	10.3859	6.64944	14.0388	1.87296	-2.90670857	5.743361023	0.000599682	0.064055012	
ZNF618	3.45802	16.0853	3.94056	16.0712	3.41002	10.3424	3.19219	16.2232	1.80452	8.1618	3.89611	15.2654	1.00244	6.68054	2.732248573	5.261568737	0.00061464	0.061632169	
APOBEC3F	1.34447	11.6227	1.10502	8.16292	0.892045	3.74395	1.43531	8.10608	0.470446	5.64517	0.889809	13.8563	0.260892	7.00919	4.062799926	3.55611476	0.000623471	0.062190423	
LINC00515	1.4455	31.4924	2.09188	87.5534	5.01053	83.6988	0.797803	122.53	0	49.1019	1.53598	77.7314	7.24539	263.16	5.286756234	5.352705338	0.000636574		
DCK4	11.4313	56.6503	16.6093	63.8752	23.3084	94.1833	16.4801	95.835	19.4951	66.5719	10.3645	90.3645	20.6495	101.478	2.294584842	9.12064523	0.000652481	0.064405643	
BLZP1	6.58129	34.7642	8.90077	51.9568	10.6608	48.55	8.55457	51.3546	6.09051	40.9102	3.75681	37.8587	9.24787	66.2285	2.830846146	6.484846454	0.000674582	0.06624811	
CCL4	19.9455	62.232	66.1666	95.553	63.3498	116.067	19.0072	114.352	82.2801	46.2022	40.5543	229.214	60.1564	217.285	5.180877814	9.195418624	0.000678522	0.066270957	
ADAR	37.2267	149.217	40.109	158.812	43.0428	126.528	41.2732	186.192	40.9532	169.007	39.5268	179.898	33.3336	163.175	2.287683887	9.449099595	0.000681771	0.066270957	
AKT1S1	2.12903	20.3241	2.82399	22.8745	1.39247	17.8845	2.1988	19.0378	2.48737	20.5001	2.8028	19.189	1.06809	8.95363	3.058976858	3.653363866	0.000691275	0.066853632	
UNC5C	0.150325	9.23637	0.00671033	12.2117	0	3.45012	0.0229414	11.7977	0.0083921	2.47673	0.0135018	6.69612	0.0302653	7.32604	7.851816196	5.317521948	0.000674409	0.000723313	
TBC1D14	13.3712	7.03128	13.7454	4.2484	10.2074	3.05455	13.8421	2.55388	10.3179	3.6098	13.0672	2.79894	12.2665	19.7304	-2.666682023	5.213994397	0.000723313		
TOR1B	10.4111	68.7304	14.1422	89.1997	11.2678	73.1313	12.6138	65.2237	10.054	49.1528	12.9272	10.7244	15.2472	96.5758	2.661179194	7.303492688	0.000730641	0.069600852	
SLC25A28	8.33332	57.3025	6.64877	37.3558	0.508637	41.5367	7.12112	71.4165	13.6326	87.1534	6.93455	86.2305	2.11286	68.6306	3.078255652	5.864625589	0.000735652	0.06972952	
TNC	0.386516	14.404	0.320892	25.849	0.554811	36.7574	0.11236	26.3419	1.67787	54.0624	0.290522	24.2471	0.999729	78.0311	6.281746571	8.538454741	0.000748396	0.070583638	
DNAAF1	0.0335946	5.18259	0.0436063	8.20433	13.6999	0.0465201	13.1699	0.074076707	10.3974	0	12.9878	0.392986	30.9828	0.0655398	17.65	7.944375599	4.471869542	0.000761648	0.071482337
SCOS3	3.77259	38.7171	9.31146	58.8047	2.25613	38.321	1.92102	54.1974	6.40484	234.304	6.61435	105.665	3.48862	62.1087	4.150414228	6.541014361	0.000775076	0.072385881	
GJB2	0.09801	3.20561	8.11491	2.82794	49.8821	1.7998	59.1304	0.572057	57.6069	8.89852	47.9203	2.47201	43.6986	4.138864	5.78657461	0.000782547	0.072435433		
GCNT4	0.0587616	2.31496	0.240968	5.64794	0.497318	9.87191	0.111676	8.84696	4.92141	0.135301	5.62839	0.301826	13.056	4.59774134	0.000785952	0.072435433			
TNFSF15	0.217003	22.3233	0.370364	36.															