

Table 2a. Genes impacted by ipilimumab in CD4<sup>+</sup> T cells

Gene symbol	Gene name	Fold-change	p-value	FDR	Pre-Mean ± SD	Post-Mean ±SD
<b>Cell cycle-related</b>						
CDC2	cell division cycle 2, G1 to S and G2 to M	1.98	0.009	0.0409	18.61±4.41	36.92±21.36
		2.78,	0.0142,	0.0432,	66.68±59.31,	185.59±185.36,
TYMS	thymidylate synthetase	2.77	0.0075	0.0408	129.75±58.10	358.99±254.47
CCNB2	cyclin B2	2.08	0.0142	0.0434	28.17±11.75	58.49±45.13
CDK7	cyclin-dependent kinase 7	1.26	0.0074	0.0408	214.08±75.01	270.13±106.34
<b>Cytokines-related</b>						
PGDS	prostaglandin D2 synthase, hematopoietic	2.2	0.0024	0.0393	14.20±5.42	31.30±14.57
		1.51,	0.0048,	0.04044,	489.68±470.87,	740.39±581.83,
TGFBR3	transforming growth factor β RIII	1.39	0.0111	0.0411	505.71±304.47	701.22±246.45
IFNγ	interferon, γ	1.46	0.0255	0.0751	138.35±104.72	201.55±120.78
IL-7	interleukin 7	1.28	0.0169	0.0511	15.43±10.42	19.73±8.89
STAT1	signal transducer and activator of transcription 1	1.28	0.0081	0.0409	1141.96±330.11	1460.67±577.64
SCYE1	small inducible cytokine subfamily E, member 1	1.27	0.0103	0.041	278.24±100.74	352.82±149.81
		0.80,	0.0061,	0.0406,	5219.38±1457.55,	4291.38±1772.32,
IL-7R	interleukin 7 receptor	0.74	0.0011	0.0375	3309.89±1296.32	2467.81±1094.22
IL-2Rα	interleukin 2 receptor, α	0.69	0.0181	0.0544	113.56±58.89	79.12±39.28
IL-15	interleukin 15	0.74	0.0032	0.0398	54.76±39.59	40.63±31.09
TNFSF8	tumor necrosis factor superfamily, member 8	0.73	0.0202	0.0605	248.08±148.25	181.53±92.03
<b>Chemokines-related</b>						
		1.29,	0.0055,	0.0405,	1449.91±772.02,	1867.82±802.10,
ITGB1	integrin, β1 (antigen CD29)	1.20	0.0012	0.0375	396.68±336.59	476.25±376.51
CXCR3	chemokine receptor 3	1.29	0.0286	0.0825	47.04±23.35	60.53±33.18
CXCR7	chemokine receptor 7	0.75	0.0205	0.0614	83.62±25.83	63.45±25.78
ITGA6	integrin, α6	0.72	0.0211	0.063	1166.8±1046.57	837.4±796.19
<b>Activation, proliferation and differentiation-related</b>						
		1.98,	0.0165,	0.0498,	41.58±22.80,	82.16±62.67,
MKI67	antigen identified by monoclonal antibody Ki-67	1.69	0.0104	0.0410	19.37±9.50	32.73±20.37
ICOS	inducible T-cell costimulator	1.49	0.0011	0.0375	587.76±294.69	874.26±397.84
GATA3	GATA binding protein 3	1.43	0.0124	0.042	284.77±189.82	406.03±268.34
		1.37,	0.0023,	0.0392,	163.55±83.74,	224.53±114.73,
CTLA-4	cytotoxic T-lymphocyte-associated protein 4	1.37	0.0249	0.0734	511.58±260.28	700.23±359.54
MICA	MHC class I polypeptide-related sequence A	0.7	0.0015	0.0379	120.33±67.61	84.36±51.72
<b>BCL family-related</b>						
Bcl3	B-cell CLL/lymphoma 3	1.56	0.0036	0.0400	199.55±112.65	311.36±120.66
BAK1	Bcl2-antagonist/killer 1	1.26	2.00E-04	0.0365	130.50±27.61	164.92±33.45
		1.24,	0.0067,	0.0407,	314.36±77.54,	388.54±79.60,
Bcl2L11	Bcl2-like 11	1.21	0.0369	0.1053	442.48±299.18	536.88±388.57
BCLAF1	Bcl2-associated transcription factor 1	1.21	0.0234	0.0695	61.14±14.91	73.89±26.64
		0.72,	0.0158,	0.0479,	189.15±81.00,	137.91±40.11,
Bcl2	B-cell CLL/lymphoma 2	0.63	0.0050	0.0404	427.68±327.43	272.97±207.62
<b>Apoptosis MAP kinase and protein kinase-related</b>						
ANXA5	annexin 5	1.32	0.0271	0.0794	599.68±269.08	793.89±425.06
MAPK6	mitogen-activated protein kinase 6	1.31	0.0261	0.0768	209.49±142.30	273.63±202.36
PPP1CC	protein phosphatase 1, catalytic subunit, γ isoform	1.23	0.0152	0.0462	998.56±432.59	1225.87±571.01
CASP7	caspace 7, apoptosis-related cysteine peptidase	1.22	0.0145	0.0441	141.11±41.72	171.83±48.77
MAP2K6	mitogen-activated protein kinase kinase kinase 6	0.77	0.0105	0.0410	77.3±41.24	59.77±33.17
ANXA11	annexin 11	0.75	0.0003	0.0368	93.23±20.45	70.21±31.98
ATF7	activating transcription factor 7	0.75	0.0252	0.0743	170.44±120.64	128.30±107.21
MAP4K4	mitogen-activated protein kinase kinase kinase 4	0.63	0.0095	0.041	137.49±51.60	86.97±29.96

Table 2b. Genes impacted by ipilimumab in CD8<sup>+</sup> T cells

Gene symbol	Gene name	Fold-change	p-value	FDR	Pre-Mean ± SD	Post-Mean ±SD
<b>Cell cycle-related</b>						
CDC2	cell division cycle 2, G1 to S and G2 to M	1.81	0.03	0.0897	18.37±6.09	33.23±21.15
CDCA7	Cell division cycle associated 7	1.67	0.0113	0.0647	87.63±93.37	146.50±111.23
<b>Cytokines-related</b>						
TNFSF4	tumor necrosis factor superfamily, member 4	0.58	0.0082	0.0647	40.88±27.10	23.93±14.71
<b>Chemokines-related</b>						
ITGAV	integrin, αV (antigen CD51)	0.80	5.00E-04	0.0647	114.65±54.10	91.78±42.91
<b>Activation Differentiation and Interaction-related</b>						
HLA-DRB4	major histocompatibility complex, class II, DR β4	1.4	0.0163	0.0647	28.04±26.29	39.18±37.40
		1.39,	0.0100,	0.0647,	178.84±104.07,	248.93±148.36,
GATA3	GATA binding protein 3	1.35	0.0026	0.0647	139.84±44.14	188.83±75.51
HLA-DRA	major histocompatibility complex, class II, DR α	1.38	0.0193	0.0647	540.53±402.57	745.47±350.32
CD6	CD6 molecule (CD166 receptor)	1.32	0.0248	0.0754	179.47±95.79	236.58±157.76
CD5	CD5 molecule	1.22	0.0181	0.0647	103.58±38.21	126.47±45.17
EOMES	Eomesodermin	0.69	0.0292	0.0877	1063.26±642.42	738.05±445.38
<b>Apoptosis,MAP Kinases-related</b>						
TIAM1	T-cell lymphoma invasion and metastasis 1	1.68	0.0105	0.0647	83.63±67.00	140.61±116.68
ANXA5	annexin 5	1.31	0.0114	0.0647	576.93±278.33	747.53±316.78
API5	apoptosis inhibitor 5	1.24	0.0088	0.0647	187.92±118.48	233.04±151.93