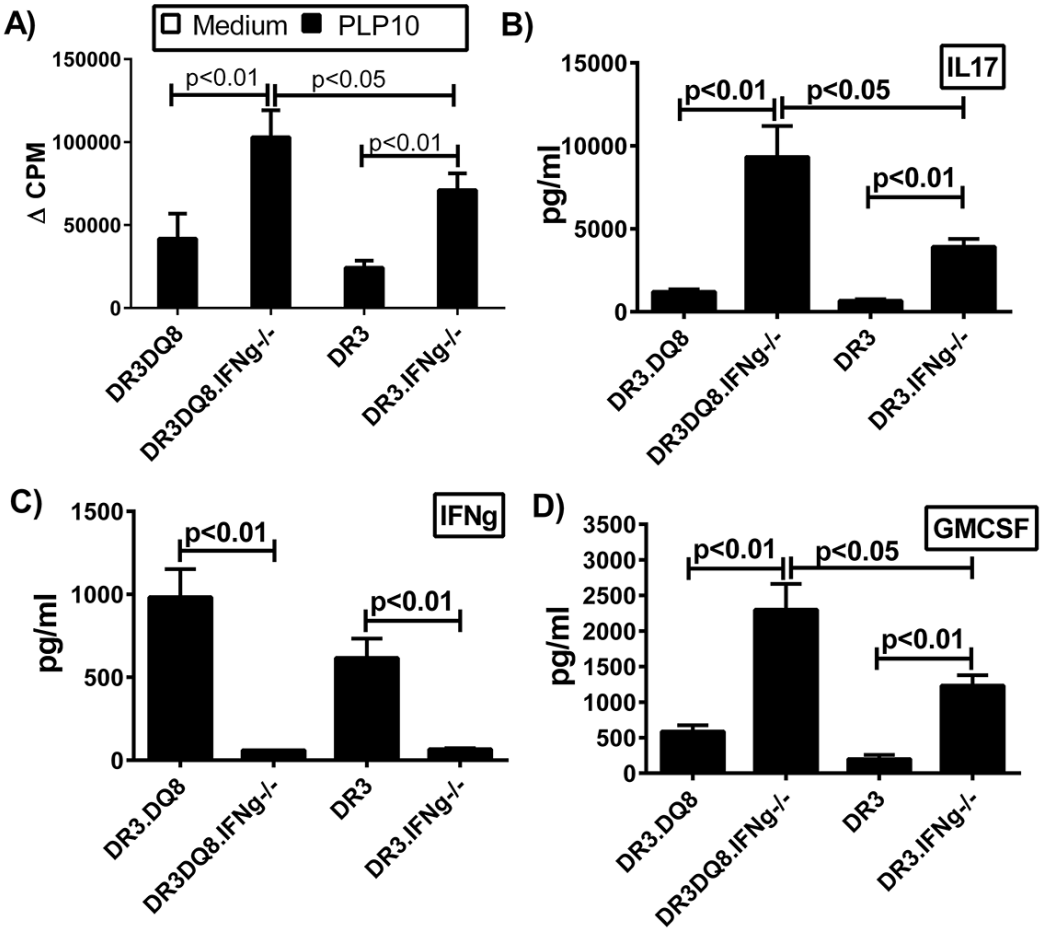
Supplemental Fig 1



Supple Fig 1. DRB1*0301.DQ8.IFNγ$^{-/-}$ double Tg mice show Increased proliferation and production of pro-inflammatory mediators compared to DRB1*0301.IFNγ$^{-/-}$ single Tg mice. A) IFNγ-deficient DRB1*0301.DQ8.IFNγ$^{-/-}$ showed stronger T-cell proliferation compared to DRB1*0301.IFNγ$^{-/-}$ single Tg mice as well as IFNγ-sufficient DRB1*0301 single and DRB1*0301.DQ8^{-} double Tg mice. For measurement of antigen specific T cell recall response, splenocytes were isolated from PLP_{91-110} immunized DRB1*0301, DRB1*0301.IFNγ$^{-/-}$, DRB1*0301.DQ8, and DRB1*0301.DQ8.IFNγ$^{-/-}$ Tg mice; and then cultured with or without (control) PLP_{91-110} peptide for 48 h. The proliferative response was assessed by pulsing the cultures with [^{3}H] thymidine for the last 16 h. The data are presented as the difference in CPM ± SD and are the average of three independent experiments. Among all the strains, DRB1*0301.DQ8.IFNγ$^{-/-}$ with EAE showed highest levels of IL-17 **(B)** and GM-CSF **(D)**. Although DRB1*0301.IFNγ$^{-/-}$ Tg group showed higher levels of IL17 and GMCSF compared to DRB1*0301 Tg mice, the levels were lower compared to DRB1*0301.DQ8.IFNγ$^{-/-}$ Tg mice. As expected, only IFNγ-sufficient DRB1*0301 single Tg and DRB1*0301.DQ8 double Tg mice produce IFNγ **(C),** whereas no IFNγ was observed in either DRB1*0301.IFNγ$^{-/-}$ Tg or DRB1*0301.DQ8.IFNγ$^{-/-}$ Tg mice.

Supplemental Table 1: Heat-map of the protein and RNA levels of various cytokines, chemokines and chemokine receptors in different cells and tissues in IFNγ sufficient with classical EAE and IFNγ deficient mice with atypical EAE[a].

	mRNA expression (Realtime-PCR)					Protein (Bio-plex)
	BILS	SCILS	Brain	Spinal cord	CD4 RNA	CD4 protein
IL1a	1.5	-1.5	1	1	1	1.39
IL1b	-6	-3	10	-2	2	1.39
IL3	5	1	10	1	15	3
IL4	1	-3	1	20	1	-1.6
IL5	7	2	10	1	10	2.02
IL6	6	1	16	1	11.3	1.5
IL10	1	-16	1	1	1	1
IL11	2.5	1	1	1	8.46	ND
IL12a	1	-6.4	1	-6	1	-1.8
IL12b	1	1	20	1	20	1
IL13	10	1	6	1	10.3	2.5
IL15	-5.2	1	1	1	-9.12	1
IL17	6	3	5	-5	4.08	1.3
IL22	5.9	1	10	10	5.6	1
IL23	5	1	3	1	1	1.2
IFNg	-20	-20	-10	-20	-20	-20
G-CSF	6	1	12	2	8	1.5
GMCSF	10	1	16	1	1	1.65
TNFa	3	1	5	1	30	3
MCP1	1	-6	-10	-25	1	-4.1
MIP1A	1	50	10	1	10	1.52
CCL5	-4.2	-17.6	-10	-20	1	1
CCL7	ND	ND	7	-10	7.4	ND
CCL8	1	7.57	50	-8	5	ND
CCL11	2	3	20	2.7	7.2	ND
CCL17	3	2	40	1	3	ND
CCL19	3	1	50	1	5	ND
CCL21	1	1	1	1	1	ND
CCL22	1	1	1	5	1	ND
CCL27	2.2	1	1	1	1	ND
CXCL9	1	-4.2	1.5	-50	1	ND
CXCL10	-6.3	-27	3	-15	1	ND
CXCL12	1	-3.9	1	-50	1	ND
CCR4	1	1	7	1	8	ND
CCR5	1	-5	1	-2	-10	ND
CCR6	5	1	2	1	15	ND
CXCR2	3.9	1	4	1	20	ND
CXCR3	1	-10	2	-6	-18	ND
CXCR4	6	1	6	1	18	ND
CXCR6	1	1	1	1	1	1
		High in DR3DQ8.IFNg-/-				
		High in DR3DQ8				

[a]Protein levels of cytokine and chemokines were measured using mouse bio-plex assay as mentioned in method, where as mRNA expression was measured using gene specific primers from RealtimePCR.com. Cytokines and chemokine receptor expression were analyzed in RNA from CD4+ T cells isolated from IFN□-deficient or sufficient mice using Real-time PCR. Expression levels were quantified using the threshold cycle (Ct) method normalized for the house keeping genes β-actin, GADPH and HPRT. This table show fold changes of each chemical mediators in IFNγ deficient mice over IFNγ sufficient mice. Thus a positive value (red color) indicates the cytokine/chemokine is increased in IFNγ deficient mice whereas a negative value (green color) means, it was higher in IFNγ sufficient mice. Yellow color do not no significant changes.