

Supplemental Table 1. Vk-Jk usage

Family	R4A	R4A x FcγRIIB ^{-/-}
Vk1		
BB1-Jk1 ^a	2	16
BB1-Jk 2	4	6
BB1-Jk4 ^a	3	10
BB1-Jk5 ^b	3	0
Total	12	32
Vk4/5		
AH4-Jk5	5	2
KB4-Jk2	2	1
KB4-Jk4	2	0
KF4-Jk5	3	1
KK4-Jk5	5	1
Total	19	5
Vk9/10		
Bv9-Jk5	3	3
CE9-Jk4	0	1
CE9-Jk5	0	3
Total	3	7
Vk12		
12-44-Jk2	0	2
12-44-Jk4	0	1
Total	0	3
Vk21		
21-2-Jk1	4	0
21-4-Jk1	0	3
21-2-Jk2	0	2
21-2-Jk4	0	2
21-5-Jk2	0	2
21-12-Jk5	0	4
Total	4	13
Vk23		
23-48-Jk4	0	4
23-48-Jk5	0	3
Total	0	7
Vk24/Vk25		
HF24-Jk4	2	0
HF24-Jk5	2	0
	4	0
Total sequenced	42	67

VK families were identified using the IgBLAST algorithm. ^aGermline genes that generate high affinity anti-DNA antibodies when paired with the R4A H chain.

^bGermline gene that generate a low affinity anti-DNA antibodies when paired with the R4A H chain.

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Supplemental Table II. Phenotype of FcγRIIB^{-/-} DCs.

	% CD86 ⁺	%CD83 ⁺
WT	34.8 (± 16.3)	20.1 (± 4.7)
FcγRIIB^{-/-}	52.7% (± 3.1) ^a	35.4 (± 6.8) ^b

The percentage of CD86⁺ and CD83⁺ DCs was determined by flow cytometry. Data are presented as the mean ± SD. ^a*p* = 0.057; ^b*p* < 0.029 determined by Mann-Whitney.

Supplemental Table III. Cytokine profile of medium and LPS-treated DCs

	WT		FcγRIIB ^{-/-}	
	medium	LPS	medium	LPS
TNFα	1.6 (± 0.3)	6.7 (± 4.0)	1.2 (± 0.2)	5.6 (± 2.3)
IL-6	1.7(± 0.4)	554.0 (± 127.3)	3.1 (± 1.6)	819.0 (± 245.8)
IL-10	6.6 (± 4.2)	3052 (± 1813)	6.2 (± 4.8)	3319 (± 1298)
IL-12	6.4 (± 2.2) ^a	78.4 (± 17.2)	2.4 (± 1.0)	94.6 (± 42.6)

Cytokine responses to medium and LPS were measured by qPCR. Values are expressed as the mean ± SD of the relative expression levels normalized to *polr2a*.

There were no statistically significant differences in the cytokine responses to medium or LPS between WT and FcγRIIB^{-/-} DCs, with the exception of IL-12^a, which was lower in medium-treated FcγRIIB^{-/-} DCs ($p < 0.03$ as determined by Mann-Whitney).

Supplemental Table IV. Cytokine profile of sera-treated DCs

sera	<u>WT mDCs</u>		<u>FcγRIIB^{-/-} mDCs</u>	
	R4A	R4A x FcγRIIB^{-/-}	R4A	R4A x FcγRIIB^{-/-}
TNFα	0.9 (\pm 0.1)	1.4 (\pm 0.4)	0.9 (\pm 0.1)	1.6 (\pm 0.7)
IL-6^a	1.6 (\pm 0.2)	3.2 (\pm 0.8)	1.8 (\pm 0.2)	4.0 (\pm 2.0)
IL-10^a	6.7 (\pm 1.2)	45.2 (\pm 30.2)	5.0 (\pm 2.1)	12.2 (\pm 18.7)
IL-12	3.9 (\pm 1.7)	4.2 (\pm 1.0)	2.2 (\pm 0.8)	2.9 (\pm 1.2)

Cytokine responses of DCs to sera treatment were measured by qPCR. Values are expressed as the mean \pm SD of the relative expression levels normalized to *polr2a*.

^aData and statistics are presented in Figures 6a and 6b.