

Fcγ receptors

Name	CD64 FcγRI	CD16 FcγRIIIa	CD32 FcγRIIa	CD32 FcγRIIc	CD32 FcγRIIb
Tissue distribution	Macrophage Dendritic cells	NK cells Macrophages Mast cells Platelets	PMN Macrophages Dendritic cells Mast cells	NK cells	B cells PMN Macrophages Mast cells
Function	Phagocytosis Respiratory burst Cytokine stimulation DC-endocytic transport	Phagocytosis Respiratory burst Cytokine stimulation Plts- aggregation and degranulation NK-ADCC	Phagocytosis Respiratory burst Cytokine stimulation		Inhibits ITAM mediated responses This is the inhibitory receptor
Regulation	GM-CSF increases γ-IFN increases IL-4 decreases	C5a increases TGFβ increases γ-IFN increases IL-4 decreases	GM-CSF increases γ-IFN increases IL-4 decreases		IVIg increases IL-4 increases γ-IFN decreases
Knockout mice	When all activating receptors are knocked out, mice are protected from immune complex mediated inflammation When FCGRI is knocked out, mice are also conferred some protection	When all activating receptors are knocked out, mice are protected from immune complex mediated inflammation FCGRIII KO mice appear identical to the common chain knockout mice	When all activating receptors are knocked out, mice are protected from immune complex mediated inflammation	When all activating receptors are knocked out, mice are protected from immune complex mediated inflammation	Increased antibody responses Increased susceptibility to autoimmune disease Diminished B cell recall responses when FDC knocked out for CD32
Details	High affinity receptor Binds IgG1 and IgG3 40kD Chromosome 1q21	Medium affinity receptor Binds IgG1 and IgG3 Chromosome 1q23	Low affinity receptor Binds IgG2 Chromosome 1q23	Low affinity receptor Chromosome 1q21-23	Low affinity receptor Binds IgG2 Chromosome 1q23
Miscellaneous	Binds CRP	FcγRIIb is a GPI linked receptor expressed on PMN.	Binds CRP Polymorphic: H131- high affinity		

		<p>Inherited deficiency of FcγRIIIb exists and has no known phenotype. FcγIIIb NA1/NA2 polymorphism important in isoimmune neutropenia</p> <p>FcγRIIIa is polymorphic with F176 being the most common and V-176 being less common. F-176 binds less avidly and is associated with lupus</p>	<p>R131- low affinity</p> <p>Distribution of polymorphisms in general population is approximately 50/50</p> <p>R131 associated with increased susceptibility to infection and lupus nephritis</p>		
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