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## FcγRIIB (D8F9C) XP<sup>®</sup> Rabbit mAb (PE Conjugate)

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> FC-FP	<b>Reactivity:</b> M	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P08101	<b>Entrez-Gene Id:</b> 14130
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:50
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity/Sensitivity</b>	FcγRIIB (D8F9C) XP <sup>®</sup> Rabbit mAb (PE Conjugate) recognizes endogenous levels of total FcγRIIB protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro284 of mouse FcγRIIB protein.	
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometric analysis in mouse cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated FcγRIIB (D8F9C) XP <sup>®</sup> Rabbit mAb #96397.	
<b>Background</b>	FcγRIIB (CD32B) is a low affinity, IgG Fc-binding receptor expressed on B cells, monocytes, macrophages, and dendritic cells (DCs) (1-3). It is the inhibitory Fc receptor and signals through an immunoreceptor tyrosine-based inhibitory motif (ITIM) within its carboxy-terminal cytoplasmic tail (2). Binding of immune complexes to FcγRIIB results in tyrosine phosphorylation of the ITIM motif at Tyr292 and recruitment of the phosphatase SHIP, which mediates inhibitory effects on immune cell activation (2,4). In this way, FcγRIIB suppresses the effects of activating Fc-binding receptors (3). For example, mice deficient for FcγRIIB have greater T cell and DC responses following injection of immune complexes (5,6). In addition, FcγRIIB plays a role in B cell affinity maturation (7). Signaling through FcγRIIB in the absence of signaling through the B cell receptor (BCR) is proapoptotic, while signaling through FcγRIIB and the BCR simultaneously attenuates the apoptotic signal and results in selection of B cells with higher antigen affinity (7).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Tridandapani, S. et al. (2002) <i>J. Biol. Chem.</i> 277, 5082-89.</li> <li>2. Tridandapani, S. et al. (1997) <i>Mol. Cell. Biol.</i> 17, 4305-11.</li> <li>3. Guilliams, M. et al. (2014) <i>Nat Rev Immunol</i> 14, 94-108.</li> <li>4. Bruhns, P. et al. (2000) <i>J. Biol. Chem.</i> 275, 37357-64.</li> <li>5. Kalergis, A.M. and Ravetch, J.V. (2002) <i>J Exp Med</i> 195, 1653-9.</li> <li>6. Desai, D.D. et al. (2007) <i>J Immunol</i> 178, 6217-26.</li> <li>7. Pearse, R.N. et al. (1999) <i>Immunity</i> 10, 753-60.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)
<b>Cross-Reactivity Key</b>	<b>M:</b> Mouse
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