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## CD86/B7-2 (GL-1) Rat mAb (APC Conjugate)

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

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP, FC-L	M	Endogenous	Rat IgG2a kappa	#P42082	12524
<b>Product Usage Information</b>	For optimal flow cytometry results, we recommend 0.06 µg of antibody per test.				
	<b>Application</b>				<b>Dilution</b>
	Flow Cytometry (Fixed/Permeabilized)				1:330
	Flow Cytometry (Live)				1:330
<b>Storage</b>	Supplied in 10 mM NaH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, 0.09% NaN <sub>3</sub> , 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.				
<b>Specificity/Sensitivity</b>	CD86/B7-2 (GL-1) Rat mAb (APC Conjugate) recognizes endogenous levels of total CD86/B7-2 protein. This antibody detects an epitope within the extracellular domain.				
<b>Source / Purification</b>	This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.				
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to APC and tested in-house for direct flow cytometric analysis in mouse cells.				
<b>Background</b>	CD80 (B7-1, BB1) and CD86 (B7-2, B70) are members of the B7 family of cell surface ligands that regulate T cell activation and immune responses. CD80 is expressed on activated antigen presenting cells, including dendritic cells, B cells, monocytes, and macrophages. CD86 is expressed on resting monocytes, dendritic cells, activated B lymphocytes, and can be further upregulated in the presence of inflammation (1-3). CD80 and CD86 are ligands for CD28, which functions as a T cell costimulatory receptor. Interaction of CD28 with CD80 or CD86 provides the second signal required for naïve T cell activation, T cell proliferation, and acquisition of effector functions (3-7). Alternatively, CD80 and CD86 also act as ligands to CTLA-4, which results in the downregulation of T cell activity (3,7-9). The GL-1 antibody is used as a marker for CD86 expression on B cells, macrophages, and dendritic cells.				
<b>Background References</b>	<ol style="list-style-type: none"> <li>Freeman, G.J. et al. (1989) <i>J Immunol</i> 143, 2714-22.</li> <li>Azuma, M. et al. (1993) <i>Nature</i> 366, 76-9.</li> <li>Adams, A.B. et al. (2016) <i>J Immunol</i> 197, 2045-50.</li> <li>Linsley, P.S. et al. (1990) <i>Proc Natl Acad Sci U S A</i> 87, 5031-5.</li> <li>Gimmi, C.D. et al. (1991) <i>Proc Natl Acad Sci U S A</i> 88, 6575-9.</li> <li>Harding, F.A. et al. (1992) <i>Nature</i> 356, 607-9.</li> <li>Collins, A.V. et al. (2002) <i>Immunity</i> 17, 201-10.</li> <li>Linsley, P.S. et al. (1991) <i>J Exp Med</i> 174, 561-9.</li> <li>Krummel, M.F. and Allison, J.P. (1995) <i>J Exp Med</i> 182, 459-65.</li> </ol>				

**Species Reactivity** Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Applications Key** **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **FC-L:** Flow Cytometry (Live)

**Cross-Reactivity Key** **M:** Mouse

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