



12-628-C500

## Monoclonal Antibody to CD86 (mouse) Low Endotoxin (0.5 mg)

<b>Clone:</b>	GL-1
<b>Isotype:</b>	Rat IgG2a
<b>Specificity:</b>	The rat monoclonal antibody GL-1 reacts with CD86 (B7-2), a 70-80 kDa type I transmembrane glycoprotein of immunoglobulin supergene family, expressed on professional antigen-presenting cells, such as dendritic cells, macrophages or activated B lymphocytes.
<b>Immunogen:</b>	LPS-activated CBA/Cs mouse splenic B cells
<b>Species Reactivity:</b>	Mouse
<b>Purity:</b>	> 95% (by SDS-PAGE)
<b>Purification:</b>	Purified from cell culture supernatant by protein-G affinity chromatography.
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Azide free phosphate buffered saline (PBS), approx. pH 7.4; 0.2 µm filter sterilized. Endotoxin level is less than 10 EU/mg of the protein, as determined by the LAL test.
<b>Storage / Stability:</b>	Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD80 (B7-1) and CD86 (B7-2) are ligands of T cell critical costimulatory molecule CD28 and of an inhibitory receptor CTLA-4 (CD152). The both B7 molecules are expressed on professional antigen-presenting cells and are essential for T cell activation, the both molecules can also substitute for each other in this process. The question what are the differences in CD80 and CD86 competency has not been fully elucidated yet; there are still conflicts in results about their respective roles in initiation or sustaining of the T cell immune response.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****References:**

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- \*Nolan A, Kobayashi H, Naveed B, Kelly A, Hoshino Y, Hoshino S, Karulf MR, Rom WN, Weiden MD, Gold JA: Differential role for CD80 and CD86 in the regulation of the innate immune response in murine polymicrobial sepsis. *PLoS One*. 2009 Aug 12;4(8):e6600.
- \*Brasel K, De Smedt T, Smith JL, Maliszewski CR: Generation of murine dendritic cells from flt3-ligand-supplemented bone marrow cultures. *Blood*. 2000 Nov 1;96(9):3029-39.
- \*Nolan A, Weiden M, Kelly A, Hoshino Y, Hoshino S, Mehta N, Gold JA: CD40 and CD80/86 act synergistically to regulate inflammation and mortality in polymicrobial sepsis. *Am J Respir Crit Care Med*. 2008 Feb 1;177(3):301-8.
- \*Edgton KL, Kausman JY, Li M, O'Sullivan K, Lo C, Hutchinson P, Yagita H, Holdsworth SR, Kitching AR: Intrarenal antigens activate CD4+ cells via co-stimulatory signals from dendritic cells. *J Am Soc Nephrol*. 2008 Mar;19(3):515-26.
- \*And many other.

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