



## CD80 Antibody [2D10.4]

CATALOG NUMBER: 76-035

### Specifications

<b>SPECIES REACTIVITY:</b>	Mouse
<b>TESTED APPLICATIONS:</b>	FACS, Func
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.
<b>SPECIFICITY:</b>	The 2D10.4 antibody reacts with human CD80, also known as B7-1, a 55 kDa type I transmembrane protein ligand for CD152 (CTLA-4) and for CD28, a co-stimulatory receptor for the T cell receptor (TCR).
<b>HOST SPECIES:</b>	Mouse

### Properties

<b>PURIFICATION:</b>	The monoclonal antibody was purified utilizing affinity chromatography. The endotoxin level is determined by LAL test to be less than 0.01 EU/μg of the protein.
<b>PHYSICAL STATE:</b>	liquid
<b>BUFFER:</b>	Phosphate-buffered aqueous solution, pH7.2.
<b>CONCENTRATION:</b>	1 mg/mL
<b>STORAGE CONDITIONS:</b>	The product should be stored undiluted at 4°C . Do not freeze.
<b>CLONALITY:</b>	Monoclonal
<b>ISOTYPE:</b>	Mouse IgG1, kappa
<b>CONJUGATE:</b>	Unconjugated

### Additional Info

<b>ALTERNATE NAMES:</b>	B7, BB1, B7-1, B7.1, LAB7, CD28LG, CD28LG1, CD80
<b>OFFICIAL SYMBOL:</b>	CD80
<b>GENE ID:</b>	941

### Background

<b>BACKGROUND:</b>	The 2D10.4 antibody reacts with human CD80, also known as B7-1, a 55 kDa type I transmembrane protein ligand for CD152 (CTLA-4) and for CD28, a co-stimulatory receptor for the T cell receptor (TCR). CD28 also binds a second B7 ligand known as CD86 (B7-2). Both CD80 and CD86 are expressed on activated B cells and antigen-presenting cells. These ligands trigger CD28 signaling in concert with TCR activation to drive T cell proliferation, induce high-level expression of IL-2, impart resistance to apoptosis, and enhance T cell cytotoxicity. The interaction / co-stimulatory signaling between the B7 ligands and CD28 or CTLA-4 provides crucial communication between T cells and B cells or APCs to coordinate the adaptive immune response.
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<b>REFERENCES:</b>	1) Leucocyte Typing VI: White Cell Differentiation Antigens: Proceedings of the Sixth International Workshop and Conference Held in Kobe, Japan, 10-14 November 1996. Garland Pub., 1998.  2) Cognasse, F., Hamzeh Cognasse, H., Lafarge, S., Chavarin, P., Pozzetto, B., Richard, Y., Garraud, O. (2008). Identification of two subpopulations of purified human blood B cells, CD27 <sup>+</sup> CD23 <sup>+</sup> and CD27 <sup>high</sup> CD80 <sup>+</sup> , that strongly express cell surface Toll like receptor 9 and secrete high levels of interleukin 6. <i>Immunology</i> , 125(3), 430-437.  3) Bashuda, H., Kimikawa, M., Seino, K., Kato, Y., Ono, F., Shimizu, A., ... Okumura, K. (2005). Renal allograft
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**FOR RESEARCH USE ONLY**

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