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CD80 Antibody [2D10.4] (PE)

CATALOG NUMBER: 76-039

Specifications

SPECIES REACTIVITY:	Human
TESTED APPLICATIONS:	FACS
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
SPECIFICITY:	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).
HOST SPECIES:	Mouse

Properties

PURIFICATION:	The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.
PHYSICAL STATE:	liquid
BUFFER:	Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, ph7.2.
CONCENTRATION:	5 uL (1 ug) / test
STORAGE CONDITIONS:	The product should be stored undiluted at 4˚C and should be protected from prolonged exposure to light. Do not freeze.
CLONALITY:	Monoclonal
ISOTYPE:	Mouse IgG1, kappa
CONJUGATE:	PE

Additional Info

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

Background

BACKGROUND:	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.
REFERENCES:	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 CD23+ and CD27high CD80+, that strongly express cell surface Toll like receptor 9 and secrete high levels of interleukin 6.Immunology,125(3), 430-437.

3) Bashuda, H., Kimikawa, M., Seino, K., Kato, Y., Ono, F., Shimizu, A., ... Okumura, K. (2005). Renal allograft rejection is prevented by adoptive transfer of anergic T cells in nonhuman primates.Journal of Clinical Investigation,115(7), 1896-1902.

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