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Technical Data Sheet

Anti-Human CD80 (B7-1) SAFIRE Purified

Catalogue Number : 02911-25

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Clone: 2D10.4
Format/Conjugate: SAFIRE Purified
Concentration: 1 mg/mL
Reactivity: Human
Laser: Not Applicable
Peak Emission: Not Applicable
Peak Excitation: Not Applicable
Filter: Not Applicable
Brightness (1=dim,5=brightest): Not Applicable
Isotype: Mouse IgG1, kappa
Formulation: Phosphate-buffered aqueous solution, ph7.2.
Storage: Product should be kept at 2-8°C.
Applications: FC, FA

Description

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.

Preparation & Storage

The product should be stored undiluted at 4°C. Do not freeze. 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.

Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. It is recommended that the reagent be titrated for optimal performance for each application.

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., HamzehCognasse, 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 Tolllike receptor 9 and secrete high levels of interleukin6.;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.

email: info@bio-gems.com | domain: www.bio-gems.com | phone: 818.338.3312 | fax: 818.338.3316