

## Anti-Human CD80 (B7-1) PE

Catalogue Number : 02911-60

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

### Product Information

**Clone:** 2D10.4

**Format/Conjugate:** PE

**Concentration:** 5  $\mu$ L (0.5  $\mu$ g)/test

**Reactivity:** Human

**Laser:** Blue (488nm), Yellow/Green (532-561nm)

**Peak Emission:** 578nm

**Peak Excitation:** 496nm

**Filter:** 585/40

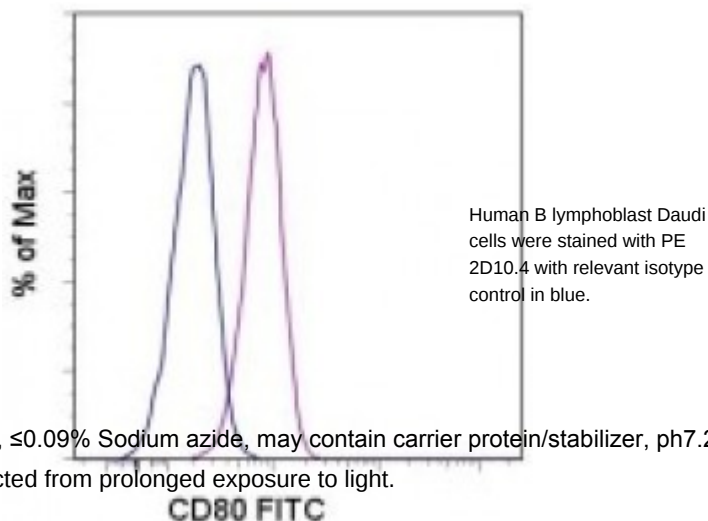
**Brightness (1=dim,5=brightest):** 5

**Isotype:** Mouse IgG1, kappa

**Formulation:** Phosphate-buffered aqueous solution,  $\leq 0.09\%$  Sodium azide, may contain carrier protein/stabilizer, pH7.2.

**Storage:** Product should be kept at 2-8°C and protected from prolonged exposure to light.

**Applications:** FC



### 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 and should be protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

### Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. The antibody can be used at less than or equal to 5  $\mu$ L per test. A test is the amount of antibody required to stain a cell sample in the final volume of 100  $\mu$ L.

### 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<sup>-</sup> and CD27<sup>+</sup> CD80<sup>+</sup>, 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.