TECHNICAL DATA SHEET

PE Anti-Human CD152 (CTLA-4) (BNI3)

Catalog Number: 50-1529

PRODUCT INFORMATION

Contents: PE Anti-Human CD152 (CTLA-4) (BNI3)

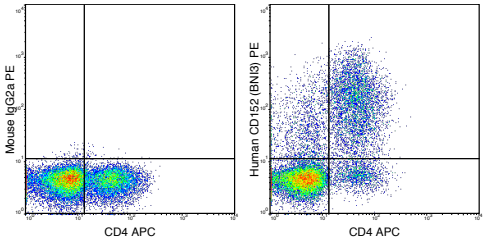
Isotype: Mouse IgG2a, kappa

Concentration: 5 uL (0.5 ug)/test

Clone: BNI3

Reactivity: Human

Formulation: 10 mM NaH2PO4, 150 mM NaCl, 0.09% NaN3, 0.1% gelatin, pH7.2



Human PBMC were stimulated overnight with PMA and Ionomycin and stained with APC Anti-Human CD4 (20-0048), followed by intracellular staining with 0.5 ug PE Anti-Human CD152 (50-1529) (right panel) or 0.5 ug PE Mouse IgG2a isotype control (left panel).

DESCRIPTION

The BNI3 antibody is specific for human CD152, commonly known as CTLA-4, a 33-37 kDa protein expressed as a homodimer on the surface of activated T and B cells, and on thymocytes. CTLA-4 is structurally similar, yet functionally disparate, to the T cell co-stimulatory molecule CD28. Both CTLA-4 and CD28 interact with the co-stimulatory molecules CD80 (B7-1) and CD86 (B7-2) on antigen-presenting cells, with CTLA-4 displaying a higher avidity than CD28. While CD28 typically delivers a potent co-stimulatory signal in support of T cell activation, CTLA-4 appears to act as a negative regulator of T cell activation and may contribute to the suppressor function of Treg cells. CTLA-4 proteins may be initially sequestered within Golgi vesicles, from which they can be transferred to and from the cell surface, a mechanism by which Treg cells can selectively impart suppressive functions. The BNI3 antibody may be used for flow cytometric analysis of intracellular or surface CTLA-4 expression, and is also widely used for neutralization of CTLA-4 when expressed at the cell surface. The BNI3 antibody is reported to be cross-reactive with Baboon, Cynomolgus and Rhesus CTLA-4.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 uL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 uL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10e5 to 1x10e8 cells.

REFERENCES

Moreno-Fernandez ME, Rueda CM, Rusie LK, and Chougnet CA. 2011. Blood. 117: 5372-5380. (in vitro blocking)Schonfeld D, Matschiner G, Chatwell L, Trentmann S, Gille H, Hulsmeyer M, Brown N, Kaye PM, Schlehuber S, Hohlbaum AM and Skerra A. 2009. 106: 8198-8203. (Immunohistochemistry – frozen tissue)Rivas MN, Weatherly K, Hazzan M, Vokaer B, Dremier S, Gaudray F, Goldman M, Salmon I, and Braun MY. 2009. 183:4284-4291. (in vitro blocking)Bonzheim I, Geissinger E, Tinguely M, Roth S, Grieb T, Reimer P, Wilhelm M, Rosenwald A, Muller-Hermelink HK, and Rudiger T. 2008. Am. J. Clin. Pathol. 130: 613-619. (Immunohistochemistry – paraffin embedded tissue; Immunofluorescence microscopy – frozen tissue)Young NT, Waller ECP, Patel R, Roghanian A, Austyn JM, and Trowsdale J. 2008. 111: 3090-3096. (in vitro activation)Wei B, da Rocha Dias S, Wang H and Rudd CE. 2007. J. Immunol. 179: 400-408. (in vitro activation)Jonuleit H, Schmitt E, Stassen M, Tuettenberg A, Knop J and Enk AH. 2001. J. Exp. Med. 193: 1285-1294 (in vitro blocking)Oaks MK and Hallett KM. 2000. J. Immunol. 164: 5015-5018. (Immunoprecipitation; EIA – plate coating)

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.