Technical Data Sheet

PE Mouse Anti-Human CD152

Product Information

Material Number: 557301 Alternate Name: CTLA-4 50 tests Size Vol. per Test: 20 µl BNI3 Clone: **Isotype:** Mouse IgG2a, κ

Reactivity: Human

QC Testing: Baboon or Rhesus or Cynomolgus

Workshop:

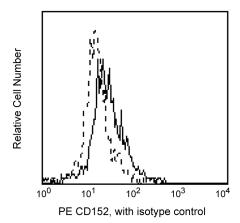
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Reacts with the "cytolytic T lymphocyte-associated antigen", CTLA-4. CTLA-4 is transiently expressed on activated CD28+ T cells and binds to CD80 and CD86 present on antigen presenting cells (APC) with high avidity. This interaction appears to deliver a negative regulatory signal to the T cell. There are recent reports that indicate that CTLA-4 is also expressed on B cells when cultured with activated T cells, suggesting a possible role of CTLA-4 in the regulation of B-cell response. Immobilized BNI3.1 enhances T-cell proliferation induced by CD3 and CD28.

Recent studies have showed that CD152 can be expressed by regulatory T (Treg) cells. It has been found this antibody can stain the intracellular CD152 on the Treg cells after fixation and permeabilization of cells.

Clone BNI3 also cross-reacts with a subset of peripheral blood lymphocytes of baboon, and both rhesus and cynomolgus macaque monkeys, following Concanavalin A (Con A) treatment. The distribution of BNI3+ cells following activation is similar to that observed with peripheral blood lymphocytes from normal human donors.



Profile of anti-CD152 reactivity on Con-A-stimulated (3 day) peripheral blood lymphocytes of rhesus macaque (macaca mulatta) analyzed by flow cytometry.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
Intracellular staining (flow cytometry)	Tested During Development

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Suggested Companion Products

Catalog Number	Name	Size	Clone
556653	PE Mouse IgG2a, κ Isotype Control	50 tests	G155-178
554714	BD Cytofix/Cytoperm TM Fixation/Permeablization Kit	250 tests	(none)

Product Notices

- This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10⁶ cells in a 100-µl experimental sample (a test).
- 2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Castan J, Klauenberg U, Kalmar P, Fleischer B, Broker BM. Expression of CTLA-4 (CD152) on human medullary CD4+ thymocytes. *Med Microbiol Immunol (Berl)*. 1998; 187(1):49-52. (Biology)

Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. Leucocyte Typing VI: White Cell Differentiation Antigens. London: Garland Publishing; 1997. (Biology) Kuiper HM, Brouwer M, Linsley PS, van Lier RA. Activated T cells can induce high levels of CTLA-4 expression on B cells. J Immunol. 1995; 155(4):1776-1783. (Biology)

Lindsten T, Lee KP, Harris ES, et al. Characterization of CTLA-4 structure and expression on human T cells. *J Immunol*. 1993; 151(7):3489-3499. (Biology) Morton PA, Fu XT, Stewart JA, et al. Differential effects of CTLA-4 substitutions on the binding of human CD80 (B7-1) and CD86 (B7-2). *J Immunol*. 1996; 156(3):1047-1054. (Biology)

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