

TECHNICAL DATA SHEET

CyFlow™ CD152 PE Anti-Hu; Clone BNI3

REF CV021049

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD152
Alternative Names	—
Clone	BNI3
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG2a
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	Human CD152-IgG heavy chain fusion protein

Specificity

The mouse monoclonal antibody BNI3 recognizes human CD152 antigen, a 45 kDa type I transmembrane protein serving as a negative regulator of T cell responses.

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Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD152 (CTLA-4) is a homodimeric transmembrane protein similar to CD28 and binding the same ligands, i.e. CD80 (B7.1) and CD86 (B7.2), but with higher affinity. Unlike CD28 with important costimulating functions, CD152 acts as an important inhibitory receptor essential for modulation of the immune system. CD152 becomes transiently expressed on activated T cells and its malfunction can cause autoimmune diseases, such as insulin-dependent diabetes mellitus, Graves disease, Hashimoto thyroiditis, celiac disease, systemic lupus erythematosus, or thyroid-associated orbitopathy.

References

- Steiner K1, Waase I, Rau T, Dietrich M, Fleischer B, Bröker BM: Enhanced expression of CTLA-4 (CD152) on CD4+ T cells in HIV infection. Clin Exp Immunol. 1999 Mar; 115(3):451-7. < PMID: 10193417 >
- Steiner K, Moosig F, Csernok E, Selleng K, Gross WL, Fleischer B, Bröker BM: Increased expression of CTLA-4 (CD152) by T and B lymphocytes in Wegener's granulomatosis. Clin Exp Immunol. 2001 Oct; 126(1):143-50. < PMID: 11678911 >
- Chin LT, Chu C, Chen HM, Hsu SC, Weng BC, Chu CH: Site-directed in vitro immunization leads to a complete human monoclonal IgG4 lambda that binds specifically to the CDR2 region of CTLA-4 (CD152) without interfering the engagement of natural ligands. BMC Biotechnol. 2007 Aug 23; 7:51. < PMID: 17714596 >

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- Kraszula L, Eusebio M, Kupczyk M, Kuna P, Pietruczuk M: The use of multi-color flow cytometry for identification of functional markers of nTregs in patients with severe asthma. Pneumonol Alergol Pol. 2012; 80(5):389-401. < PMID: 22926900 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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