Technical Data Sheet

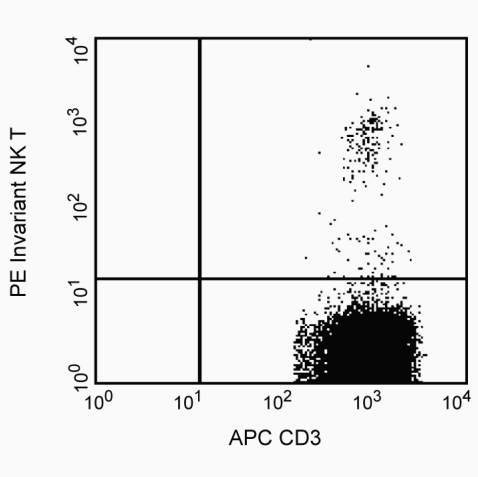
PE Mouse Anti-Human Invariant NK T Cell

Product Information

Material Number:	**562051**
Size:	25 tests
Vol. per Test:	20 µl
Clone:	6B11
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Monoclonal antibody 6B11 reacts with a unique determinant in the CDR3 region of the invariant (Vα24-JαQ) TCR chain. Thus 6B11 identifies a subset of all Vα24 positive T cells. The binding of the PE-conjugate of 6B11 can be partially blocked by other antibodies specific for Vα24 (BD Biosciences Pharmingen, data not shown). This invariant chain is expressed on invariant NK T cells, which are a small subset of T lymphocytes that also express other NK cell molecules such as CD161. Invariant NK T cells have been reported to play an immunoregulatory role. The Vα24-JαQ interacts with the CD1d protein. Invariant NK T cells can be specifically activated by CD1d-presented antigen resulting in rapid production of IL-4 and IFN (also known as IFN-γ). Studies of NK T cells describe their role in anti-tumor immunity and autoimmunity.



Profile of anti-Invariant NK T cell (clone 6B11) reactivity on peripheral blood CD3+ lymphocytes analyzed by flow cytometry.

Preparation and Storage

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

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.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)
555335	APC Mouse Anti-Human CD3	100 tests	UCHT1

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

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4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. An isotype control should be used at the same concentration as the antibody of interest.

References

Exley MA, Tahir SM, Cheng O, et al. A major fraction of human bone marrow lymphocytes are Th2-like CD1d-reactive T cells that can suppress mixed lymphocyte responses. *J Immunol.* 2001; 167(10):5531-5534. (Biology)

Illes Z, Kondo T, Newcombe J, Oka N, Tabira T, Yamamura T. Differential expression of NK T cell V alpha 24J alpha Q invariant TCR chain in the lesions of multiple sclerosis and chronic inflammatory demyelinating polyneuropathy. *J Immunol.* 2000; 164(8):4375-4381. (Biology)

Tahir SM, Cheng O, Shaulov A, et al. Loss of IFN-gamma production by invariant NK T cells in advanced cancer. *J Immunol.* 2001; 167(7):4046-4050. (Biology)