Technical Data Sheet

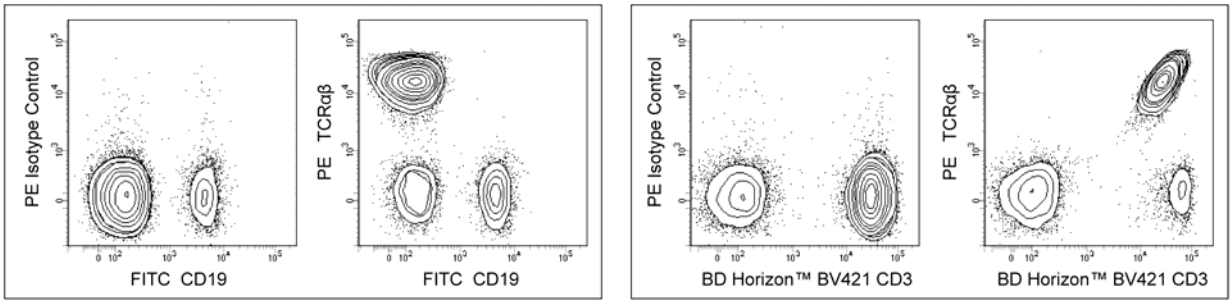
PE Mouse Anti-Human TCRαβ

Product Information

Material Number:	**564728**
Alternate Name:	alpha-beta T cell receptor, TCRAB, TRA@/TRB@; IP26A
Size:	100 tests
Vol. per Test:	5 µl
Clone:	IP26 (also known as IP26A)
Immunogen:	Human T Cell Clone
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The IP26 monoclonal antibody specifically recognizes a monomorphic determinant on the αβ T-cell receptor (TCRαβ). The TCRαβ is a disulfide-linked 80 kDa heterodimer consisting of a 44 kDa α chain and a 37 kDa β chain. The TCRαβ is normally expressed on 50-70% of thymocytes and on a large fraction of mature T cells including greater than 95% of peripheral blood CD3+ T cells. The TCRαβ serves as a receptor for peptide antigens bound to MHC molecules. The IP26 antibody is mitogenic and useful for the flow cytometric analysis of TCRαβ+ T-cell subsets.



Two-color Flow Cytometric Analysis TCRαβ Expression on Human Peripheral Blood Lymphocytes

Left Panel - *Whole blood was treated with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899) to lyse erythrocytes. The cells were washed and then stained with FITC Mouse Anti-Human CD19 antibody (Cat. No. 340409) and either PE Mouse IgG1, κ Isotype Control (Cat No. 554680, Left Plot) or PE Mouse Anti-Human TCRαβ antibody (Cat. No. 564728; Right Plot). Two-color flow cytometric contour plots showing the coexpression of CD19 vs TCRαβ (or Ig Isotype control staining) were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes.*

Right Panel - *Erythrocyte-lysed whole blood was similarly washed and then stained with BD Horizon™ BV421 Mouse Anti-Human CD3 antibody (Cat. No. 562426/562427) and either PE Mouse IgG1, κ Isotype Control (Left Plot) or PE Mouse Anti-Human TCRαβ antibody (Right Plot). Two-color flow cytometric dot plots showing the coexpression of CD3 vs TCRαβ (or Ig Isotype control staining) were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes.*

Flow cytometric analysis was performed using a BD FACSCanto™ II Flow Cytometer System.

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
554656	Stain Buffer (FBS)	500 ml	(none)
554657	Stain Buffer (BSA)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21

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562426	BV421 Mouse Anti-Human CD3	100 tests	UCHT1
562427	BV421 Mouse Anti-Human CD3	25 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. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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References

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