Technical Data Sheet

BV421 Mouse Anti-Human CD3

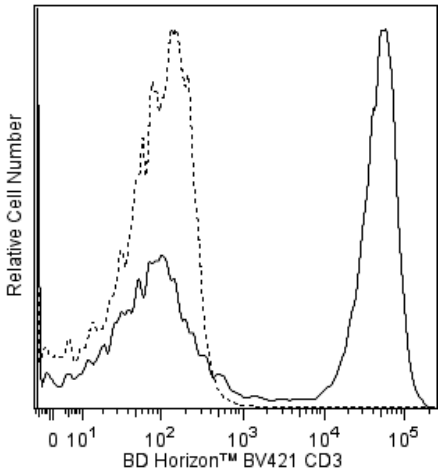
Product Information

Material Number:	**562877**
Alternate Name:	CD3E; CD3-epsilon; T3E; TCRE
Size:	50 tests
Vol. per Test:	5 µl
Clone:	SP34-2
Immunogen:	Purified Human CD3ε Protein
Isotype:	Mouse (BALB/c) IgG1, λ
Reactivity:	Human QC Testing: Rhesus or Cynomolgus Macaque or Baboon
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Clone SP34-2 is a mouse IgG1 isotype monoclonal antibody, descendant of SP34 (mouse IgG3), with the same specificity and reactivity pattern as the parent clone. It cross-reacts with a major subset of peripheral blood lymphocytes, but not monocytes or granulocytes, of baboon, and rhesus, cynomolgus, and pigtail macaque monkeys. The distribution on lymphocytes is similar to that observed with normal human donor lymphocytes with the majority of CD3-positive cells being negative when dual stained with antibodies to B or NK cells markers. SP34-2 is also capable of inducing cell proliferation on both human and non-human primate PBMC.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD3 expression on Rhesus peripheral blood lymphocytes. *Rhesus whole blood was stained with either a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram) or with BD Horizon™ BV421 Mouse Anti-Human CD3 antibody (Cat. No. 562877; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR 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 BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40
555899	Lysing Buffer	100 ml	(none)

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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.
9. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

References

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Blumberg RS, Ley S, Sancho J, Lonberg N, Lacy E, McDermott F, Schad V, Greenstein JL, Terhorst C. Structure of the T-cell antigen receptor: evidence for two CD3 epsilon subunits in the T-cell receptor-CD3 complex. *Proc Natl Acad Sci U S A.* 1990; 87(18):7220-7224. (Clone-specific: Immunoprecipitation, Western blot)

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Jacobsen CN, Aasted B, Broe MK, Petersen JL. Reactivities of 20 anti-human monoclonal antibodies with leucocytes from ten different animal species. *Vet Immunol Immunopathol.* 1993; 39(4):461-466. (Biology)

Pessano S, Oettgen H, Bhan AK, Terhorst C. The T3/T cell receptor complex: antigenic distinction between the two 20-kd T3 (T3-delta and T3-epsilon) subunits. *EMBO J.* 1985; 4(2):337-344. (Immunogen: Activation, Dot Blot, Functional assay, Immunoprecipitation, Western blot)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens.* New York: Oxford University Press; 1995. (Clone-specific)

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