# **Technical Data Sheet**

# BV510 Mouse Anti-Human TCR αβ

# **Product Information**

Material Number:
Alternate Name:
Size:
Vol. per Test:
Clone:
Immunogen:
Isotype:
Reactivity:
Workshop:
Storage Buffer:

563625 αβ TCR; TCR alpha-beta 100 tests 5 µl T10B9.1A-31 (also known as T10B9) Human Peripheral Blood T Cells Mouse (BALB/c) IgM, ĸ QC Testing: Human V 5T-TCR.01 Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

The T10B9.1A-31 monoclonal antibody specifically binds to a monomorphic determinant of the  $\alpha\beta$  T-cell receptor expressed on greater than 95% of normal peripheral blood CD3+ T cells. The αβ TCR recognizes a peptide bound to MHC leading to T-cell activation. The T10B9.1A-31 antibody induces T-cell activation in the immobilized form and is useful in flow cytometry for studying  $\alpha\beta$ + T-cell populations.

The antibody was conjugated to BD Horizon<sup>™</sup> BV510 which is part of the BD Horizon<sup>™</sup> Brilliant Violet<sup>™</sup> family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon<sup>™</sup> BV510 can be excited by the violet laser and detected in the BD Horizon<sup>™</sup> V500 (525/50-nm) filter set. BD Horizon<sup>™</sup> BV510 conjugates are useful for the detection of dim markers off the violet laser.



Flow cytometric analysis of TCR αβ expression on human peripheral blood lymphocytes. Whole blood was stained with either BD Horizon™ BV510 Mouse Anti-Human TCR αβ antibody (Cat. No. 563625; solid line histogram) or BD Horizon™ BV510 Mouse IgM, κ Isotype Control (Cat. No. 563082; dashed 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 cytometric analysis 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<sup>™</sup> BV510 under optimum conditions, and unconjugated antibody and free BD Horizon<sup>™</sup> BV510 were removed.

## **Application Notes**

Application							
Flow cytometry Routinely T					ted		
Suggeste	d Compani	on Product	s				
Catalog Nu	alog Number Name					Size	Clone
554656		Stain Bu	ffer (FBS)			500 ml	(none)
563082		BV510 N	Mouse IgM, ĸ	Isotype Contro	50 µg	G155-228	
555899		Lysing Buffer				100 ml	(none)
BD Bioscie	ences						
bdbiosciences.	.com						
United States 877.232.8995	Canada 800.979.9408	Europe 32.53.720.550	Japan 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995		
For country co	ntact informatio	on, visit <mark>bdbiosci</mark>	ences.com/conta	ct			

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# **Product Notices**

- This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^{6}$  cells in a 100-µl experimental 1. sample (a test).
- Source of all serum proteins is from USDA inspected abattoirs located in the United States. 2
- 3 An isotype control should be used at the same concentration as the antibody of interest.
- 4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before 5. 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.
- Brilliant Violet<sup>™</sup> 510 is a trademark of Sirigen. 7.

#### References

Brown SA, Lucas BA, Waid TH, McKeown JW, Barve S, Jackson LR, Thompson JS. T10B9 (MEDI-500) mediated immunosuppression: studies on the mechanism of action. Clin Transplant. 1996; 10(6 Pt 2):607-613. (Clone-specific: Activation, Functional assay, In vivo exacerbation, Stimulation) Schlossman SF, Boumsell L, Gilks W, et al, ed. Leukocyte Typing V: White Cell Differentiation Antigens. New York: Oxford University Press; 1995 (Clone-specific)

Waid TH, Lucas BA, Amlot P, Janossy G, Yacoub M, Cammisuli S, Jezek D, Rhoades J, Brown S, Thompson JS. T10B9.1A-31 anti-T-cell monoclonal antibody: preclinical studies and clinical treatment of solid organ allograft rejection. Am J Kidney Dis. 1989; 14(5 Sup 2):61-70. (Clone-specific: Cytotoxicity, Depletion, Functional assay, Immunoprecipitation, Inhibition, In vivo exacerbation)

Waid TH, Lucas BA, Thompson JS, McKeown JW, Brown S, Kryscio R, Skeeters LJ. Treatment of renal allograft rejection with T10B9.1A31 or OKT3: final analysis of a phase II clinical trial. Transplantation. 1997; 64(2):274-281. (Clone-specific: Depletion, In vivo exacerbation)

Waid TH, Thompson JS, Siemionow M, Brown SA. T10B9 monoclonal antibody: a short-acting nonstimulating monoclonal antibody that spares gammadelta T-cells and treats and prevents cellular rejection. Drug Des Devel Ther. 2009; 3:205-212. (Immunogen: Depletion)

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