

Technical Data Sheet

V450 Mouse Anti-Rat CD45

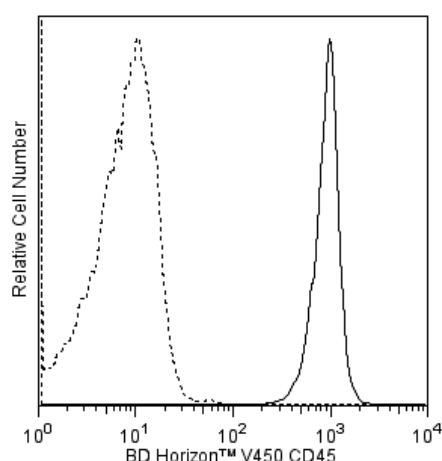
Product Information

Material Number:	561587
Alternate Name:	Ptprc; Lca; Leucocyte common antigen; RT7; T200
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	OX-1
Immunogen:	Leukocyte Common Antigen-enriched Glycoprotein Fraction from Wistar Rat Thymocytes
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The OX-1 antibody reacts with all molecular forms of CD45 (Leukocyte Common Antigen) on all hematopoietic cells except erythrocytes. CD45 is a member of the Protein Tyrosine Phosphatase (PTP) family: Its intracellular (COOH-terminal) region contains two PTP catalytic domains, and the extracellular region is highly variable due to alternative splicing of exons 4, 5, and 6 (designated A, B, and C, respectively), plus differing levels of glycosylation. The CD45 isoforms detected in the rat are cell type-, maturation-, and activation state-specific. The CD45 isoforms play complex roles in T-cell and B-cell antigen receptor signal transduction.

The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.



Flow cytometric analysis of CD45 expression on rat splenocytes. Splenocytes from a Lewis rat were stained with BD Horizon™ V450 Mouse Anti-Rat CD45 antibody (Cat. No. 561587; solid line histogram) or with a BD Horizon™ V450 Mouse IgG1, κ Isotype Control (Cat. No. 561504; dashed line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable splenocytes. 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™ V450 under optimum conditions, and unreacted BD Horizon™ V450 was 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)
561504	V450 Mouse IgG1, κ Isotype Control	0.1 mg	X40

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
6. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
7. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

Johnson P, Maiti A. CD45: A family of leukocyte-specific cell surface glycoproteins. In: Herzenberg LA, Weir DM, Blackwell C, ed. *Weir's Handbook of Experimental Immunology*, Vol 2. Cambridge: Blackwell Science; 1997:62.1-62.16. (Biology)

Sunderland CA, McMaster WR, Williams AF. Purification with monoclonal antibody of a predominant leukocyte-common antigen and glycoprotein from rat thymocytes. *Eur J Immunol*. 1979; 9(2):155-159. (Immunogen: Flow cytometry)

Takizawa F, Kinet JP, Adamczewski M. Binding of phycoerythrin and its conjugates to murine low affinity receptors for immunoglobulin G. *J Immunol Methods*. 1993; 162(2):269-272. (Biology)

van Vugt MJ, van den Herik-Oudijk IE, van de Winkle JG. Binding of PE-CY5 conjugates to the human high-affinity receptor for IgG (CD64). *Blood*. 1996; 88(6):2358-2361. (Biology: Flow cytometry)

Waggoner AS, Ernst LA, Chen CH, Rechtenwald DJ. PE-CY5. A new fluorescent antibody label for three-color flow cytometry with a single laser. *Ann N Y Acad Sci*. 1993; 677:185-193. (Biology)

Woollett GR, Barclay AN, et al. Molecular and antigenic heterogeneity of the rat leukocyte common antigen from thymocytes and T and B lymphocytes. *Eur J Immunol*. 1985; 15:168-173. (Biology)