Technical Data Sheet

V450 Mouse Anti-Rat CD90/Mouse CD90.1

Product Information

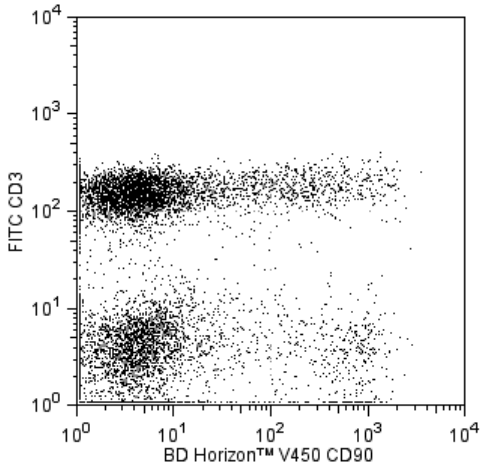
Material Number:	**561406**
Alternate Name:	Rat Thy-1; Mouse Thy-1.1
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	OX-7
Immunogen:	Rat Thymocyte Thy-1 Antigen
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Rat Tested During Development: Mouse Reported: Guinea Pig, Rabbit
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

CD90 (Thy-1) is a GPI-anchored membrane glycoprotein of the Ig superfamily which is involved in signal transduction. The OX-7 monoclonal antibody specifically binds to rat CD90 reported to be expressed by hematopoietic stem cells, early myeloid & erythroid cells, immature B lymphocytes in the bone marrow & peripheral lymphoid organs, thymocytes, recent thymic emigrants (a subset of CD45RC- peripheral T lymphocytes), neurons, glomerular mesangial cells, endothelium at inflammatory sites, mast cells, and dendritic cells. Rat dendritic epidermal T cells (DEC) have been reported to be CD90 (Thy-1) negative, unlike those of the mouse.

The OX-7 clone has been reported to crossreact with the mouse CD90.1 (Thy-1.1) alloantigen of the AKR/J and PL strains, but not CD90.2 (Thy-1.2) found on many mouse strains. In the mouse, CD90 is found on thymocytes, most peripheral T lymphocytes, some intraepithelial T lymphocytes (IEL, DEC), hematopoietic stem cells, and neurons, but not B lymphocytes. In addition, there is evidence that CD90 mediates adhesion of mouse thymocytes to mouse thymic stroma. The OX-7 clone has also been reported to crossreact with rabbit and guinea pig thymus, brain, and intestine.

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.



Multicolor flow cytometric analysis of CD90 expressed on rat splenocytes. *Splenocytes from a Lewis rat were stained with the BD Horizon™ V450 Mouse Anti-Rat CD90 antibody (Cat. No. 561406) in conjunction with a FITC Rat Anti-Mouse CD3 antibody (Cat. No. 554832/559975). A two-color flow cytometric dot plot showing the correlated expression of CD90 versus CD3 was derived from gated events based on the forward and side light-scatter characteristics of viable splenocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometry System.*

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Preparation and Storage

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.

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

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
554832	FITC Mouse Anti-Rat CD3	0.5 mg	G4.18
559975	FITC Mouse Anti-Rat CD3	0.1 mg	G4.18

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
2. 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.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. 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.
5. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

References

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