

Technical Data Sheet

V450 Mouse Anti-Rat CD59

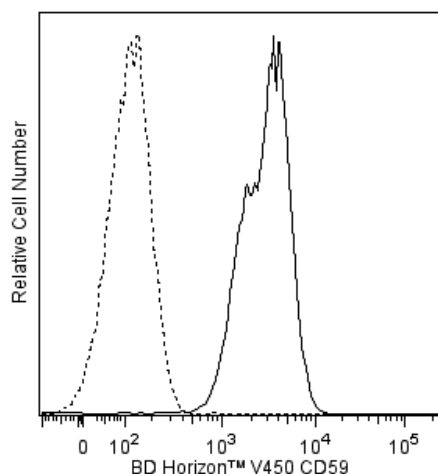
Product Information

Material Number:	562109
Alternate Name:	MACIF; Membrane attack complex inhibition factor; Protectin
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	TH9
Immunogen:	Membrane attack complex-inhibitory proteins from Rat erythrocyte membranes
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 TH9 antibody monoclonal antibody specifically binds to CD59, a 21 kDa glycosyl-phosphatidyl inositol-anchored cell-surface glycoprotein of the Ly-6 superfamily. CD59 is expressed by many types of non-hematopoietic cells. In the rat hematopoietic system, CD59 has been detected on erythrocytes, monocytes, and some lymphocytes, but not on platelets. Soluble CD59 is found in body fluids and urine. CD59 is a complement regulatory protein that acts late in the complement cascade to prevent formation of the membrane attack complex (MAC). Therefore, CD59 is one of several proteins whose function is to protect host tissue from complement attack. Rat CD59 binds rat and human complement components and inhibits cytolysis mediated by complement from multiple species. CD59 has also been suggested to be a ligand for CD2 and to participate in T-cell costimulation.

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 CD59 expression on rat bone marrow cells. Bone marrow cells from a Lewis rat were stained with a PE Mouse Anti-Rat CD45 antibody (Cat. No. 554878) and with either BD Horizon™ V450 Mouse IgG1, κ Isotype Control (Cat. No. 560373, dashed line histogram) or a BD Horizon™ V450 Mouse Anti-Rat CD59 antibody (Cat. No. 562109, solid line histogram). Flow cytometric fluorescence histograms were derived from events gated on CD45-negative cells. 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
560373	V450 Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)
554878	PE Mouse Anti-Rat CD45	0.2 mg	OX-1

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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. Please refer to www.bdbiosciences.com/pharming/en/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 Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. 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.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

References

- Funabashi K, Okada N, Matsuo S, Yamamoto T, Morgan BP, Okada H. Tissue distribution of complement regulatory membrane proteins in rats. *Immunology*. 1994; 81(3):444-451. (Biology)
- Hughes TR, Piddlesden SJ, Williams JD, Harrison RA, Morgan BP. Isolation and characterization of a membrane protein from rat erythrocytes which inhibits lysis by the membrane attack complex of rat complement. *Biochem J*. 1992; 284(1):169-176. (Immunogen)
- Lehto T, Morgan BP, Meri S. Binding of human and rat CD59 to the terminal complement complexes. *Immunology*. 1997; 90(1):121-128. (Biology)
- Liversidge J, Dawson R, Hoey S, McKay D, Grabowski P, Forrester JV. CD59 and CD48 expressed by rat retinal pigment epithelial cells are major ligands for the CD2-mediated alternative pathway of T cell activation. *J Immunol*. 1996; 156(10):3696-3703. (Clone-specific: (Co)-stimulation, Stimulation)
- Rushmere NK, Tomlinson S, Morgan BP. Expression of rat CD59: functional analysis confirms lack of species selectivity and reveals that glycosylation is not required for function. *Immunology*. 1997; 90(4):640-646. (Biology)
- Sugita Y, Masuho Y. CD59: its role in complement regulation and potential for therapeutic use. *Immunotechnology*. 1995; 1(3-4):157-168. (Biology)