

Technical Data Sheet

Purified NA/LE Hamster Anti-Rat/Mouse CD49a

Product Information

Material Number:	555000
Alternate Name:	Integrin $\alpha 1$ chain
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	Ha31/8
Immunogen:	Rat Emulsified Lewis Rat Glomeruli Cells
Isotype:	Armenian Hamster IgG2, $\lambda 1$
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is ≤ 0.01 EU/ μ g (≤ 0.001 ng/ μ g) of protein as determined by the LAL assay.

Description

The Ha31/8 antibody reacts with the 180-kDa integrin $\alpha 1$ chain (CD49a), which is a transmembrane glycoprotein that non-covalently associates with the integrin $\beta 1$ subunit (CD29) to form the $\alpha 1\beta 1$ (complex known as VLA-1). VLA-1 has been reported to be expressed on activated T cells, monocytes, smooth muscle cells, and endothelial cells. It is a receptor for collagen and laminin. The Ha31/8 monoclonal antibody is specific for both rat and mouse CD49a. It has been reported that Ha31/8 antibody can block VLA-1-mediated binding of rat cells to collagen.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Blocking	Reported
Immunoprecipitation	Reported
Immunohistochemistry-frozen	Reported
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended
Western blot	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
553961	Purified NA/LE Hamster IgG2, $\lambda 1$ Isotype Control	0.5 mg	Ha4/8
554011	FITC Mouse Anti-Armenian and Syrian Hamster IgG Cocktail	0.5 mg	(none)

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/pharmingen/hamster_chart_11x17.pdf.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Hemler ME. VLA proteins in the integrin family: structures, functions, and their role on leukocytes. *Annu Rev Immunol.* 1990; 8:365-400. (Biology)
Mendrick DL, Kelly DM, duMont SS, Sandstrom DJ. Glomerular epithelial and mesangial cells differentially modulate the binding specificities of VLA-1 and VLA-2. *Lab Invest.* 1995; 72(3):367-375. (Immunogen: Blocking, Immunohistochemistry, Immunoprecipitation)
Miyake S, Sakurai T, Okumura K, Yagita H. Identification of collagen and laminin receptor integrins on murine T lymphocytes. *Eur J Immunol.* 1994; 24(9):2000-2005. (Biology)

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