

Technical Data Sheet

Biotin Rat Anti-Mouse CD49d

Product Information

Material Number:	557406
Alternate Name:	Integrin $\alpha 4$ chain
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	R1-2
Immunogen:	AKR/Cum mouse spontaneous T lymphoma line TK1
Isotype:	Rat (F344) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The R1-2 antibody reacts with the integrin $\alpha 4$ chain (CD49d), which is expressed as a heterodimer with either of two β , $\beta 1$ or $\beta 7$ (also known as βp). The $\alpha 4\beta 1$ integrin (VLA-4, CD49d/CD29) is expressed on most peripheral lymphocytes, thymocytes, and monocytes; while the $\alpha 4\beta 7$ integrin (LPAM-1) is expressed on peripheral lymphocytes, but on only a small subset of thymocytes. These integrins mediate a variety of cell-cell and cell-matrix interactions, recognizing the ligands VCAM-1 (CD106) and fibronectin. There is evidence that levels of VLA-4 expression regulate the transendothelial migration of T lymphocytes into inflamed tissues. Integrin $\alpha 4\beta 7$ also preferentially binds to the mucosal vascular addressin, MAdCAM-1. The R1-2 antibody blocks some $\alpha 4$ integrin-mediated binding functions. In combination with mAb 9C10 (MFR4.B) (Cat. No. 553313), binding of VLA-4 expressing cells to VCAM-1 can be almost completely inhibited.

Preparation and Storage

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

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

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
553987	Biotin Rat IgG2b, κ Isotype Control	0.25 mg	A95-1
554061	PE Streptavidin	0.5 mg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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.

References

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