

Datasheet for ABIN2689307

anti-ITGA4 antibody

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Overview

Quantity:	0.5 mg
Target:	ITGA4
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This ITGA4 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunohistochemistry (IHC), Immunoprecipitation (IP), Blocking Reagent (BR)

Product Details

Brand:	BD Pharmingen™
Immunogen:	AKR/Cum mouse spontaneous T lymphoma line TK1
Clone:	R1
Isotype:	IgG2b kappa
Characteristics:	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.

Product Details

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.

BD Pharmingen™ Purified Rat Anti-Mouse CD49d - Purified - Clone R1-2 - Isotype Rat IgG2b, κ - Reactivity Ms - 0.5 mg

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	ITGA4
Alternative Name:	CD49d (ITGA4 Products)
Background:	Synonyms: Integrin $\alpha 4$ chain
Pathways:	Integrin Complex

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤ 0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:	Makwana, Werner, Acosta-Saltos, Gonitel, Pararajasingam, Pararajasingham, Ruff, Rumajogee,
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Cuthill, Galiano, Bohatschek, Wallace, Anderson, Mayer, Behrens, Raivich: "Peripheral facial nerve axotomy in mice causes sprouting of motor axons into perineuronal central white matter: time course and molecular characterization." in: **The Journal of comparative neurology**, Vol. 518, Issue 5, pp. 699-721, (2010) ([PubMed](#)).

Brocke, Piercy, Steinman, Weissman, Veromaa: "Antibodies to CD44 and integrin alpha4, but not L-selectin, prevent central nervous system inflammation and experimental encephalomyelitis by blocking secondary leukocyte recruitment." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 96, Issue 12, pp. 6896-901, (1999) ([PubMed](#)).

Romanic, Graesser, Baron, Visintin, Janeway, Madri: "T cell adhesion to endothelial cells and extracellular matrix is modulated upon transendothelial cell migration." in: **Laboratory investigation; a journal of technical methods and pathology**, Vol. 76, Issue 1, pp. 11-23, (1997) ([PubMed](#)).

Kinashi, Springer: "Adhesion molecules in hematopoietic cells." in: **Blood cells**, Vol. 20, Issue 1, pp. 25-44, (1995) ([PubMed](#)).

Andrew, Berlin, Honda, Yoshino, Hamann, Holzmann, Kilshaw, Butcher: "Distinct but overlapping epitopes are involved in alpha 4 beta 7-mediated adhesion to vascular cell adhesion molecule-1, mucosal addressin-1, fibronectin, and lymphocyte aggregation." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 153, Issue 9, pp. 3847-61, (1994) ([PubMed](#)).

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