Datasheet for ABIN1176851

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:	R1-2
Isotype:	IgG2b kappa
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Sterility:	0.2 µm filtered
Endotoxin Level:	Endotoxin level is ≤ 0.01 EU/µg (≤ 0.001 ng/µg) of protein as determined by the LAL assay.

Target Details

Target:	ITGA4
Alternative Name:	CD49d (ITGA4 Products)
Background:	The R1-2 antibody reacts with the integrin alpha4 chain (CD49d), which is expressed as a heterdimer with either of two beta, beta1 or beta7 (also known as betap). The alpha4beta1 integrin (VLA-4, CD49d/CD29) is expressed on most peripheral lymphocytes, thymocytes, and monocytes, while the alpha4beta7 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 alpha4beta7 also preferentially binds to the mucosal vascular addressin, MAdCAM-1. The R1-2 antibody blocks some alpha4 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. Synonyms: Integrin alpha4 chain
Pathways:	Integrin Complex

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered.
Preservative:	Azide free
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C. This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Publications

Product cited in:	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).

Chisholm, Williams, Lobb: "Monoclonal antibodies to the integrin alpha-4 subunit inhibit the murine contact hypersensitivity response." in: **European journal of immunology**, Vol. 23, Issue 3 , pp. 682-8, (1993) (PubMed).

Ferguson, Kupper: "Antigen-independent processes in antigen-specific immunity. A role for alpha 4 integrin." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 150, Issue 4, pp. 1172-82, (1993) (PubMed).

Kilshaw, Murant: "Expression and regulation of beta 7(beta p) integrins on mouse lymphocytes: relevance to the mucosal immune system." in: **European journal of immunology**, Vol. 21, Issue 10, pp. 2591-7, (1991) (PubMed).

Holzmann, McIntyre, Weissman: "Identification of a murine Peyer's patch--specific lymphocyte homing receptor as an integrin molecule with an alpha chain homologous to human VLA-4 alpha." in: **Cell**, Vol. 56, Issue 1, pp. 37-46, (1989) (PubMed).