

Anti-Integrin α 4 / ITGA4 / CD49d Reference Antibody (natalizumab)

Recombinant Antibody
Catalog # APR10298

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	P13612
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG4
Calculated MW	114900

Additional Information

Target/Specificity	Integrin α 4 / ITGA4 / CD49d
Endotoxin Conjugation	Unconjugated
Expression system	CHO
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

Protein Information

Name	ITGA4
Synonyms	CD49D
Function	Integrins α-4/β-1 (VLA-4) and α-4/β-7 are receptors for fibronectin. They recognize one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. They are also receptors for VCAM1. Integrin α-4/β-1 recognizes the sequence Q-I-D-S in VCAM1. Integrin α-4/β-7 is also a receptor for MADCAM1. It recognizes the sequence L-D-T in MADCAM1. On activated endothelial cells integrin VLA-4 triggers homotypic aggregation for most VLA-4-positive leukocyte cell lines. It may also participate in cytolytic T-cell interactions with target cells. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:23125415). ITGA4:ITGB1 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:18635536, PubMed:25398877). Integrin ITGA4:ITGB1 represses PRKCA-mediated L-type voltage-gated channel Ca(2+) influx and ROCK-mediated calcium sensitivity in

vascular smooth muscle cells via its interaction with SVEP1, thereby inhibiting vasocontraction (PubMed:[35802072](#)).

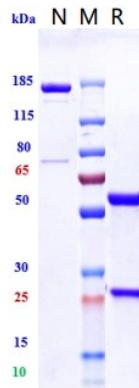
Cellular Location

Membrane; Single-pass type I membrane protein

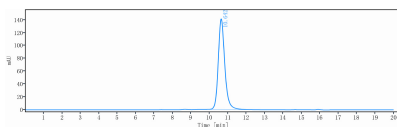
Tissue Location

Expressed in vascular smooth muscle cells (at protein level).

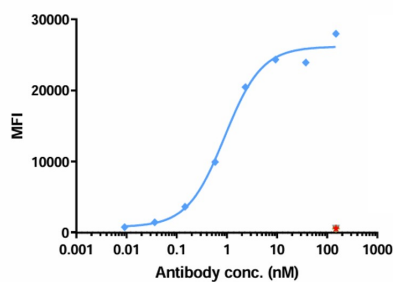
Images



Anti-Integrin $\alpha 4$ / ITGA4 / CD49d Reference Antibody (natalizumab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-Integrin $\alpha 4$ / ITGA4 / CD49d Reference Antibody (natalizumab) is 98.72%, determined by SEC-HPLC.



PLVX-puro-natalizumab-FL cell line were stained with natalizumab and negative control protein respectively, washed and then followed by PE and analyzed with FACS, with the EC50 is 0.9 nM.

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