Product Sheet

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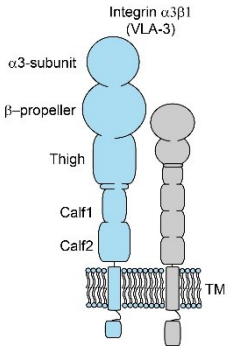
Integrin α3β1 (VLA-3)

Catalogue no.: Q48c
Clone name: VHH5

Product: VHH directed against VLA-3



Target: Integrin α3β1 (VLA-3 or CD49c, UniProtKB P26006) belongs to the family of integrins, heterodimeric cell surface receptors that play a pivotal role in cell adhesion, migration, growth and survival. The integrin family contains 18 α- and 8 β-subunits that can form 24 different integrin heterodimers that bind different ligands. Via cooperation with other types of cell surface receptors (e.g. growth factor or G-protein coupled receptors), integrins can regulate intracellular signaling. Integrin beta-1 is the most abundant β-integrin forms dimers with at least 10 different alpha subunits to form for example the Very Late Antigens VLA-3 (α3β1 integrin) or VLA-4 (α4β1 integrin). VLA-3 functions as a receptor for collagen, laminin, and fibronectin and overexpressed in various types of cancer.[1-7]

Source: Recombinant monoclonal VHH (Llama glama), purified from S.cerevisiae using affinity chromatography. Immunization with A431 cells. Phage-display selection on HeLa cells.[8]

Specificity: Human Integrin α3β1.[8]

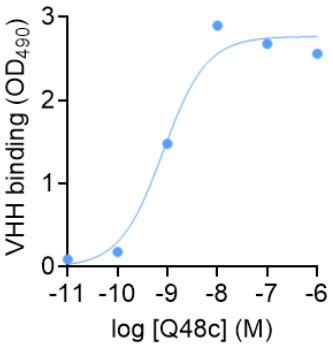
Formulation: 0.2 µm filtered solution in PBS. The products are equiped with a C-terminal FLAG tag with an unpaired cysteine for directional conjugation.

Mol. Weight: 14.3 kDa
Ext. Coeff. (ε): 38055 M^{-1} cm^{-1}
A_{280} at 1g/L: 2.7

Storage: Shipped on blue ice. Store at 4˚C or -20˚C (aliquots). Addition of 0.02% sodiumazide is optional.

Applications: ELISA, IF

Examples:



Binding of Q48c to recombinant VLA-3 in ELISA.

References:
1 Liu, S. et al. (2000) J Cell Sci 113:3563-71
2 Hood, J.D. and Cheresh, D.A. (2002) Nat Rev Cancer 2:91-100
3 Hynes, R.O. (1992) Cell 69:11-25
4 van der Flier, A. and Sonnenberg, A. (2001) Cell Tissue Res 305:285-298
5 Ramovs, V. et al. (2017) Matrix Biol 57-58:213-243
6 Sun, Q. et al. (2018) Onco Targets Ther 11:1787-1799
7 Elices M.J. et al. (1991) J Cell Biol 112:169-181
8 Groot A.J. et al. (2009) Mol Immunol 46:2022-2028