

Product Sheet



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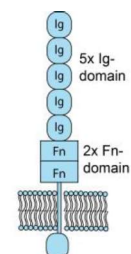
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Neural Cell Adhesion Molecules 1 (NCAM-1)

Catalogue no.: Q55c
Clone name: FSH-10B10

Product: VHH directed against NCAM

Target: The Neural Cell Adhesion Molecule 1 (NCAM-1, UniProtKB P13591) is a glycoprotein expressed on the membranes of neurons, glia and muscle cells. However, it is also found to be expressed in cells of the immune system (NK cells, T-cells and dendritic cells). There are 4 types of NCAM-1 of which one variant is soluble, while the others are linked to the plasma membrane via a GPI-anchor (120 kDa) or via a transmembrane domain (140 and 180 kDa). All types contain the 5x Ig-like domains and 2x Fn-like domains. NCAM-1 functions in cell-cell adhesion via binding to extracellular matrix protein agrin and several proteoglycans. In addition, its functioning is regulated via attachment of polysialic acid to NCAM, generating PSA-NCAM.¹⁻⁴



Source: Recombinant monoclonal VHH (Llama glama), purified from *S.cerevisiae* using affinity chromatography. Immunization with FSHD patient material. Phage-display selection on cells and captured ectodomain with total elution.

Specificity: Human NCAM-1.⁵

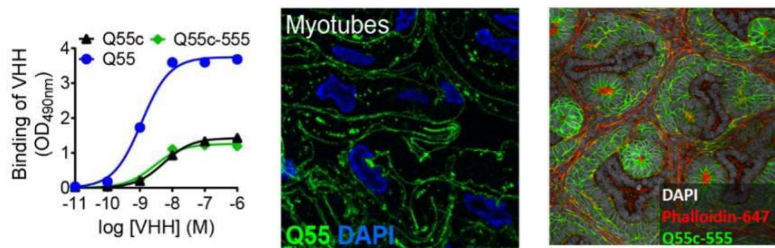
Formulation: 0.2 µm filtered solution in PBS.

Mol. Weight: 14.8 kDa
Ext. Coeff. (ε): 31065
A₂₈₀ at 1g/L: 2.1

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

Applications: ELISA, IF, FACS, imaging

Examples:



Binding of Q55, Q55c and Q55c-Hylite555 to recombinant NCAM-1 in ELISA (left), to NCAM-1 in myotubes in IF (middle) and embryonic renal tissue (right).

References:

- 1 Dickson et al., (1987) *Cell*, 50, 1119-1130
- 2 Rutishauser et al., (1982) *PNAS*, 79, 685-689
- 3 Kasper et al., (2000) *Nat Struct Biol*, 7, 389-393
- 4 Hildebrandt et al., (2010) *Adv Exp Med Biol*, 663, 95-109
- 5 van Ineveld et al., (2021) *Nat Biotechnology*, 39, 1239-1245