Product Sheet

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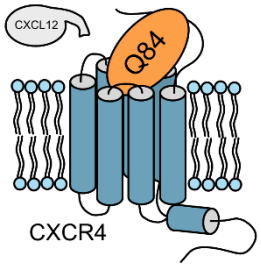
Yalelaan 1
3584 CL Utrecht
The Netherlands
+31 30 253 3421

www.qvquality.com
KvK: 30274082
VAT: 8215.17.168
NL88 RABO0153194936

CXC chemokine receptor type 4 (CXCR4) / fusin

Catalogue no.: Q84c
Clone name: QX4-C2 / VUN400

Product: VHH directed against CXCR4



Target: The CXC chemokine receptor type 4 (CXCR4 / fusin, UniProtKB P61073) is a 7-transmembrane spanning class A (rhodopsin-like) G protein-coupled receptor (GPCR). Binding of the chemokine CXCL12/SDF1α activates heterotrimeric Gαi, promoting cytoskeleton rearrangements and migration of e.g. immune cells to sites of inflammation. CXCR4 is important during embryonic development and regulates the homing and retention of hematopoietic stem cells in bone marrow. Upregulation of CXCR4 and CXCL12 contributes to the progression and metastasis of many tumor types. In addition, CXCR4 acts as a co-receptor for entry of HIV-1 and HIV-2 into cells.[1-5]

Source: Recombinant monoclonal VHH (Llama glama), purified from S.cerevisiae using affinity chromatography. Immunization with CXCR4-containing nanodiscs and cells. Phage-display selection on captured CXCR4-containing lipoarticles with total elution.[5]

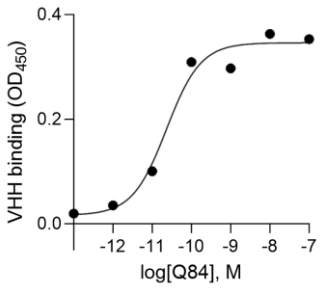
Specificity: Q84 and Q85 bind to the extracellular part of human CXCR4 and compete for CXCL12 binding.[5,6]

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

Mol. Weight: 15.0 kDa
Ext. Coeff. (ε): 20065 M^{-1} cm^{-1}
A_{280} at 1g/L: 1.3

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

Applications: ELISA, IF, antagonism



Binding of Q84 to CXCR4 in immobilized membrane extracts of CXCR4-expressing HEK293T cells.

References:
1 Bleul et al. (1996) Nature 382, 829-833
2 Gonzalo et al. (2000) J Immunol 165, 499-508
3 Domanska et al. (2004) Eur J Cancer 49, 219-230
4 Deng et al. (1996) Nature, 381, 661-666
5 Jahnichen et al. (2010) PNAS, 107, 20565-20570
6 van Hout et al. (2018) Biochem Pharmacol, 158, 402-40127