Product Sheet

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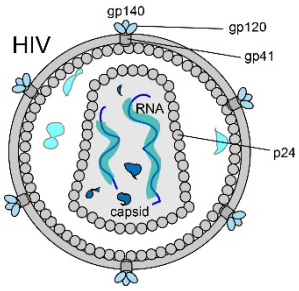
HIV surface protein gp120

Catalogue no.: Q9c
Clone name: 1F10

Product: VHH directed against HIV gp140
Target: HIV-1 is an enveloped RNA lentivirus from the retroviridae family 1. The surface of virus expresses trimeric mushroom-shaped, HIV-1-Env glycoprotein complexes that facilitate virus uptake via interaction with CD4 and CCR5 or CXCR4 on host cells. gp140 (Env) is a glycosylated trimer of non-covalenlty linked gp120 and gp41 (UniprotKB Q53I19), formed upon proteolytic cleavage of the precursor gp160.[1-6]



Source: Recombinant monoclonal VHH (Llama glama), purified from S.cerevisiae using affinity chromatography. Immunization with recombinant proteins. Phage-display selection on captured recombinant protein using competitive or total elution.

Specificity: Q9 (1F10) binds the V3 loop of gp140.
Q1 (J3) and Q3 (3E3) bind to the CD4 binding site on gp120. Q7 (1B5) and Q53 (1H9) bind near the bridging sheet, the V3 loop and the CD4 binding loop. [7,8]

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: 15.4 kDa
Ext. Coeff. (ε): 30160 M^{-1} cm^{-1}
A_{280} at 1g/L: 2.0

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

Applications: ELISA, virus neutralization

References:

1 Ganser-Pornillos B.K. et al. (2008) Curr Opin Struct Biol 18:203–217
2 Bell N.M. and Lever A.M. (2013) Trends Microbiol 21:136–144
3 de Marco A. et al., (2010) PLoS Pathog 6:e1001215
4 Tamamura et al., (2005) Curr HIV res 3, 289-301
5 Hallenberger et al., (1992) Nature 360, 358-361
6 McCoy et al., (2012) J Exp Med 209, 1091-1103
7 Strokappe et al., (2012) PLoS One, doi: 10.1371
8 Lutje Hulsik et al., (2013) PLoS Pathog, doi: 10.1371