

# Product Sheet



# QVQ

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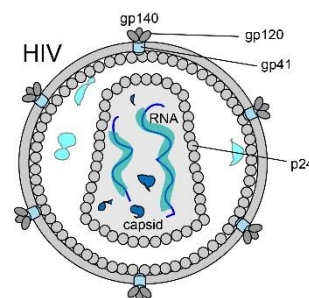
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## HIV surface protein gp41

**Catalogue no.:** Q8c  
**Clone name:** 2E7

**Product:** VHH directed against HIV gp41  
**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. Env is a glycosylated trimer of non-covalently linked gp120 and gp41 (UniprotKB Q53119), formed upon proteolytic cleavage of the precursor gp160.<sup>1-6</sup>



**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:** Q8 (2E7) and Q54 (11F1) bind an epitope exposed just before adapting post-fusion conformation. Q6 (2H10) binds to membrane proximal external region (MPER).<sup>7,8</sup>

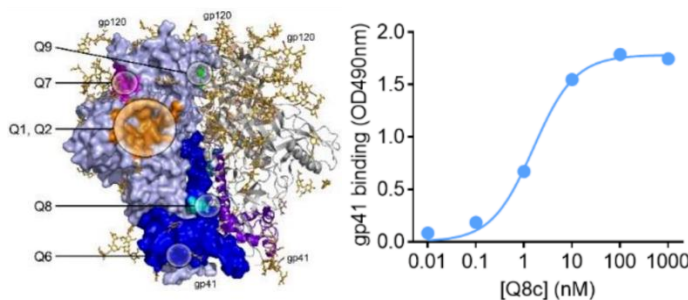
**Formulation:** 0.2 µm filtered solution in PBS. The products are equipped with a C-terminal C-Direct tag with an unpaired cysteine for directional conjugation.

**Mol. Weight:** 14.7 kDa  
**Ext. Coeff. (ε):** 26025 M<sup>-1</sup> cm<sup>-1</sup>  
**A<sub>280</sub> at 1g/L:** 1.8

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

**Applications:** ELISA, virus neutralization

### Examples:



Binding epitopes of Q1-9 to the gp160 trimer. Binding of Q8c to immobilized recombinant HIV-1 gp41 in ELISA. Bound VHH were detected with rabbit-anti-VHH (QE19), followed by donkey-anti-rabbitHRP and OPD as substrate.<sup>8</sup>

### 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