

Product Sheet



QVQ

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HIV Gag capsid protein p24

Catalogue no.: Q76bc
Clone name: 59H10-59H10

Product: VHH directed against HIV p24
Target: HIV-1 is an enveloped RNA lentivirus from the retroviridae family 1. The viral capsid contains RNA and enzymes is formed by organized p24 protein (UniProtKB Q9WMv8). p24 is formed upon cleavage of the P55 Gag protein, which is encoded by the HIV-1 gag gene. Other cleavage products are p17, p7, and p6 proteins, which are required for virus assembly. p24 is an indicator of HIV-1 infection and viral load.¹⁻⁴

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: VHH 59H10 detects HIV Gag capsid protein p24 (CA) of 48/50 HIV strains with an apparent binding affinity of <1 nM. D type viruses were not detected very well.⁵

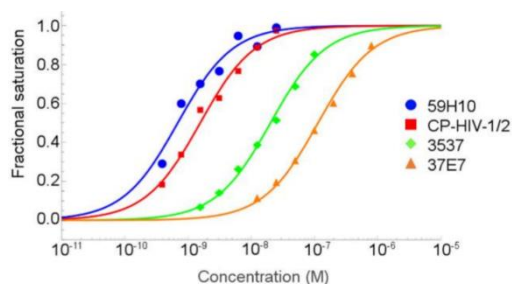
Formulation: 0.2 µm filtered solution in PBS. The products are equipped with a C-terminal C-Direct tag with an unpaired cysteine for directional conjugation.

Mol. Weight: 27 kDa
Ext. Coeff. (ε): 43680 M⁻¹ cm⁻¹
A₂₈₀ at 1g/L: 1.6

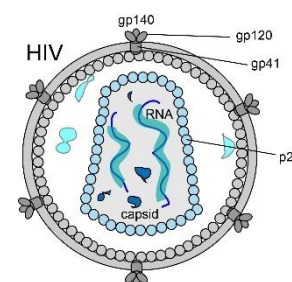
Storage: Shipped on blue ice. Store at 4 °C or -20 °C (aliquots). Addition of 0.02% sodiumazide is optional.

Applications: ELISA, BLI

Examples:



Binding of Q76 (59H10) and Q82(37E7) to p24 as determined by biolayer interferometry.⁶



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 Witt D.J. (1999) *Clin Diagn Lab Immunol* 6:369-376
- 5 Gray E.R. et al. (2017) *ACS Infect Dis* 3:479-491
- 6 Turbé et al. (2017) *Sci Rep* 7:11971