

HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag

Catalog # GP1-H51H3



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Synonym

Envelope glycoprotein gp41/gp41 (HIV)

Source

HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag(GP1-H51H3) is expressed from E. coli cells. It contains AA Ala 533 - Leu 856 (Accession # [P04578](#)).

Predicted N-terminus: Met

Molecular Characterization

GP41(Ala 533 - Leu 856)
P04578 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 44.3 kDa. The protein migrates as Band dispersion when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>85% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, CHS, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

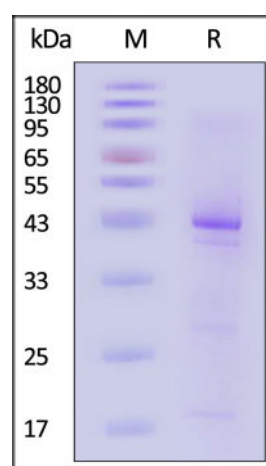
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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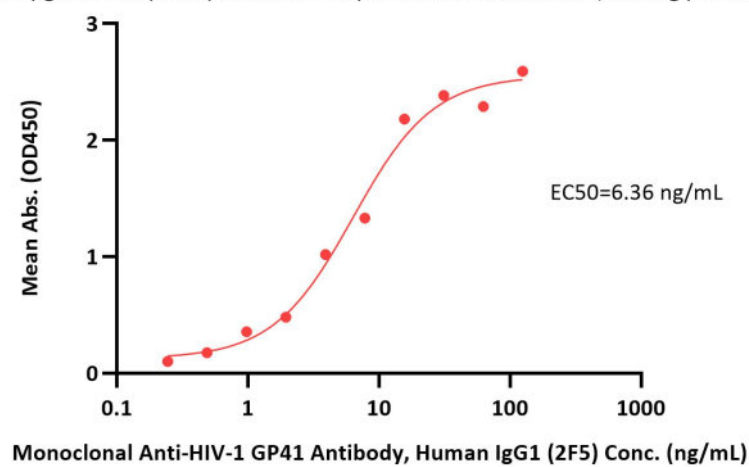
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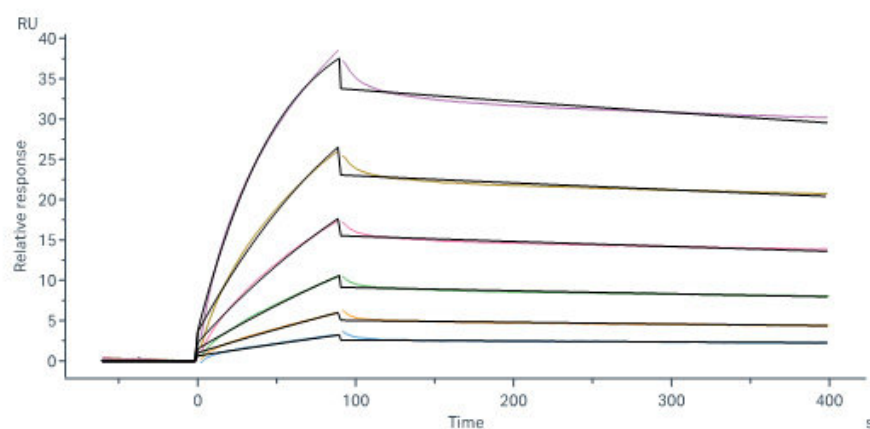
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HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag ELISA
0.1 µg of HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag per well



Immobilized HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag (Cat. No. GP1-H51H3) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-HIV-1 GP41 Antibody, Human IgG1 (2F5) with a linear range of 0.2-16 ng/mL (QC tested).

Bioactivity-SPR



Monoclonal Anti-HIV-1 GP41 Antibody, Human IgG1 (2F5) captured on Protein A Chip can bind HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag (Cat. No. GP1-H51H3) with an affinity constant of 0.468 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Infection by HIV-1 involves the fusion of viral and cellular membranes with subsequent transfer of viral genetic material into the cell. The HIV-1 envelope glycoprotein that mediates fusion consists of the surface subunit gp120 and the transmembrane subunit gp41. gp120 directs virion attachment to the cell-surface receptors, and gp41 then promotes viral-cell membrane fusion. A soluble, alpha-helical, trimeric complex within gp41 composed of N-terminal and C-terminal extraviral segments has been proposed to represent the core of the fusion-active conformation of the HIV-1 envelope. Three N-terminal helices within the bundle form a central, parallel, trimeric coiled coil, whereas three C-terminal helices pack in the reverse direction into three hydrophobic grooves on the surface of the N-terminal trimer. This thermostable subdomain displays the salient features of the core structure of the isolated gp41 subunit and thus provides a possible target for therapeutics designed selectively to block HIV-1 entry.

Clinical and Translational Updates

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