



## 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, 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.*

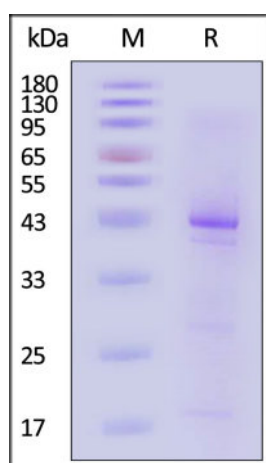
## Storage

*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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and more!

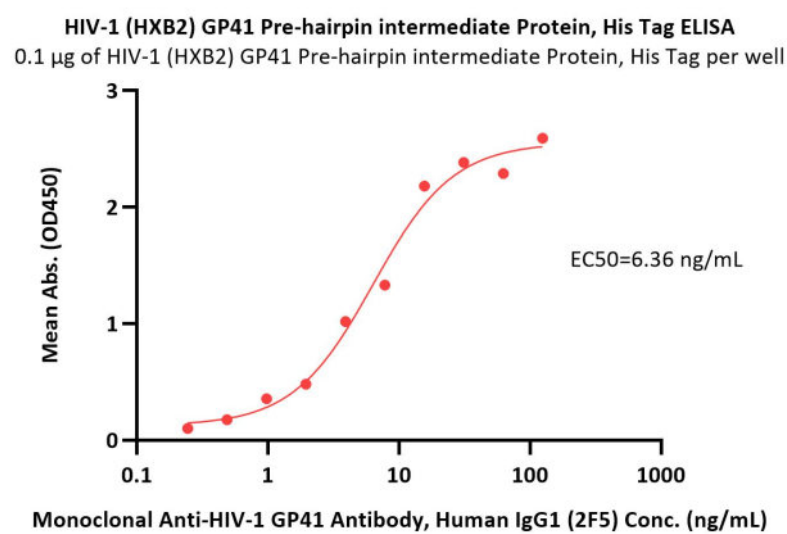


# HIV-1 (HXB2) GP41 Pre-hairpin intermediate Protein, His Tag

Catalog # GP1-H51H3

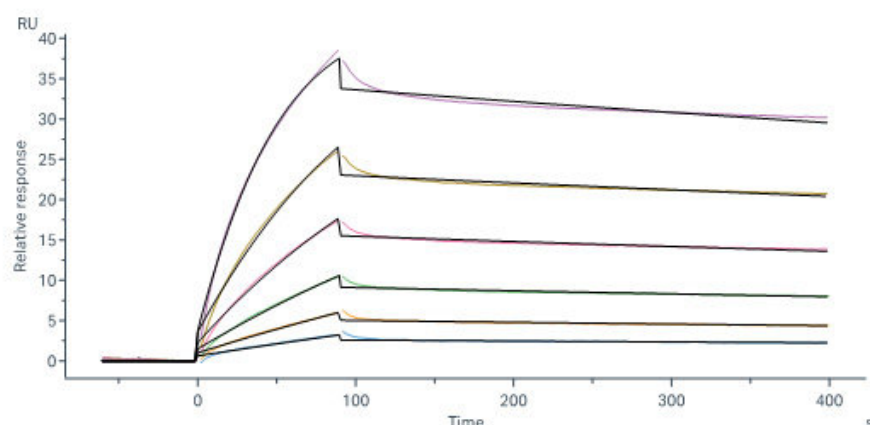


BIOSYSTEMS  
**Acro**



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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11/8/2024