

**Human CellExp™ HIV-1 (CN54) GP120**

n/a

Catalog # PBV11458r

**Specification**

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**Human CellExp™ HIV-1 (CN54) GP120 - Product info**

Primary Accession

Calculated MW

[N/A](#)

This protein is fused with polyhistidine tag at the C-terminus, has a predicted MW of 53.8 kDa. The protein migrates to 80-110 kDa due to glycosylation. KDa

**Human CellExp™ HIV-1 (CN54) GP120 - Additional Info****Other Names**

GP120, GP120-CN54

Gene Source

Source

Assay&amp;Purity

Recombinant

Sequence

**Target/Specificity**

HIV-1 GP120

**HIV-1****HEK 293 cells****SDS-PAGE; ≥97%****Yes****Thr 27 - Arg 498****Application Notes**

Reconstitute in sterile PBS (pH7.4) to a stock solution of 100 µg/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Carrier protein (0.1% (W/V) HSA or BSA) is recommended for further dilution and long term storage.

**Format**

Dry powder

**Storage**

-20°C; Lyophilized powder

**Human CellExp™ HIV-1 (CN54) GP120 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Human CellExp™ HIV-1 (CN54) GP120 - Images****Human CellExp™ HIV-1 (CN54) GP120 - Background**

Human Immunodeficiency Virus (HIV) can be divided into two major types, HIV type 1 (HIV-1) and HIV type 2 (HIV-2). HIV-1 is related to viruses found in chimpanzees and gorillas living in western Africa. HIV-2 is related to viruses found in sooty mangabeys. HIV-1 viruses may be further divided into groups. The HIV-1 group M viruses predominate and are responsible for the AIDS pandemic. Some of the HIV-1 group M subtypes are known to be more virulent or are resistant to different medications. Envelope glycoprotein GP120 (or gp120) is the name of the glycoprotein which forms the spikes sticking out of a HIV virus particle. Gp120 is essential for virus entry into cells as it plays a vital role in seeking out specific cell surface receptors for entry. Three gp120s, bound as heterodimers to a transmembrane glycoprotein, gp41, are thought to combine in a trimer to form the envelope spike, which is involved in virus-cell attachment. One half of the molecular weight of gp120 is due to the carbohydrate side chains (the "glyco-" in "glycoprotein"). These are sugar residues which form something almost like a sugar "dome" over the gp120 spikes. This dome prevents gp120 from being recognized by the human immune response. As the HIV virus and the human CD4 cell come together, the gp120 binding site "snaps open" at the last minute. The glycoprotein gp120 is anchored to the viral membrane, or envelope, via non-covalent bonds with the transmembrane glycoprotein, gp41. It is involved in entry into cells by binding to CD4 receptors, particularly helper T-cells. Binding to CD4 is mainly electrostatic although there are van der Waals interactions and hydrogen bonds.