

Recombinant HIV-1 gp120, His-tagged

Cat. No. gp120-24H **Lot. No.** (See product label)

SPECIFICATION

Product Overview HIV-1 gp120 is a non-glycosylated polypeptide chain, containing HIV-1 gp120 N-terminus immunodominant regions, 30-110 amino acids. The protein is fused to a six histidines tag.

Species HIV

Source E.coli

Description

Human immunodeficiency virus (HIV) is a retrovirus that can lead to a condition in which the immune system begins to fail, leading to opportunistic infections. HIV primarily infects vital cells in the human immune system such as helper T cells (specifically CD4+ T cells), macrophages and dendritic cells. HIV infection leads to low levels of CD4+ T cells through three main mechanisms: firstly, direct viral killing of infected cells; secondly, increased rates of apoptosis in infected cells; and thirdly, killing of infected CD4+ T cells by CD8 cytotoxic lymphocytes that recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunity is lost, and the body becomes progressively more susceptible to opportunistic infections. HIV was classified as a member of the genus *Lentivirus*, part of the family of *Retroviridae*. Lentiviruses have many common morphologies and biological properties. Many species are infected by lentiviruses, which are characteristically responsible for long-duration illnesses with a long incubation period. Lentiviruses are transmitted as single-stranded, positive-sense, enveloped RNA viruses. Upon entry of the target cell, the viral RNA genome is converted to double-stranded DNA by a virally encoded reverse transcriptase that is present in the virus.

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particle. This viral DNA is then integrated into the cellular DNA by a virally encoded integrase so that the genome can be transcribed. Once the virus has infected the cell, two pathways are possible: either the virus becomes latent and the infected cell continues to function, or the virus becomes active and replicates, and a large number of virus particles are liberated that can then infect other cells.

Form	Sterile filtered colorless clear solution. 10mM Tris-HCl, pH 4.5, 25mM Sodium Phosphate and 8M urea.
Purity	Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.
Applications	HIV-1 gp120 antigen is suitable for ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.
Storage	HIV-1 gp120 although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.

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