

Recombinant HIV HIVP14 protein

Cat. No. HIVP14-180H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	HIV-1 p24 Core Recombinant- derived from HIV-1 gene fragment is a 35kDa gag polyprotein that includes all of the p24 plus additional amino acids of the C-terminus of p17 and the N-terminus of p15. The HIV-1 p24 core is glycosylated with N-linked sugars and produced using baculovirus vectors in insect cells. Purified under conditions that maintain the tetriatary structure of the p24 molecule.
Species	HIV
Source	Insect Cells
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

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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 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. The protein solution contains 10mM Tris pH-8.0, 300mM NaCl and 0.01% Tween-20.
Molecular Mass	35kDa
Purity	Greater than 90.0% as determined by HPLC analysis & SDS-PAGE.
Applications	HIV-1 p24 Core antigen is suitable for ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.
Usage	The products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
Stability	Recombinant HIV -1 p24 core sf9 although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.
Specificity	Immunoreactive with sera from HIV infected individuals.
Shipping	Ice Packs

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