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# HIV-1 p24 Core, Sf9

Description: HIV-1 p24 Core Recombinant- derived from HIV-1 gene fragment is a 35 kDa 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.

Source: Baculovirus Insect Cells.

Physical Appearance: Sterile filtered colorless clear solution.

Purity: Greater than 90.0% as determined by HPLC analysis & SDS-PAGE.

#### Specificty:

Immunoreactive with sera from HIV infected individuals.

#### Formulation:

The protein solution contains 10mM Tris pH-8.0, 300mM NaCl and 0.01% Tween-20.

#### 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.

# Usage:

NeoBiolab's 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.

## 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.

### Introduction:

Human immunodeficiency virus (HIV) is a retrovirusthat can lead to a condition in which the immune systembegins to fail, leading to opportunistic infections. HIV primarily infects vital cells in the humanimmune systemsuch as helper T cells(specifically CD4+ T cells), macrophagesand 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 apoptosisin infected cells; and thirdly, killing of infected CD4+ T cells by CD8 cytotoxic lymphocytesthat recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunityis 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 genomeis converted to double-stranded DNAby a virally encoded reverse transcriptasethat is present in the virus particle. This viral DNA is then integrated into the cellular DNA by a virally encoded integraseso that the genome can be transcribed. Once the virus has infected the cell, two pathways are possible: either the virus becomes latentand the







www.neobiolab.com info@neobiolab.com 888.754.5670, +1 617.500.7103 United States 0800.088.5164, +44 020.8123.1558 United Kingdom 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.



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