

Recombinant HIV-1 P24 Core

Catalog No.	CSI15796A	Quantity:	100 µg
	CSI15796B		0.5 mg
	CSI15796C		1.0 mg

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 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.

HIV-1 p24 Core is a 24 kDa non-glycosylated polypeptide chain, containing the full length sequence of the HIV-1 p24.

Source: *E. coli*

Formulation: 50 mM Tris-HCl + pH 7.2 & 8 M urea.

Purity: Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.

Physical Appearance: Sterile filtered colorless clear solution.

Specific Activity: Immunoreactive with all sera of HIV-1 infected individuals.

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.

Storage & Stability: Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Avoid multiple freeze-thaw cycles.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.