

HIV-1 p24 (residues 77-436) Human Immunodeficiency Virus 1 Antigen recombinant, *E. coli*

Cat. No.	Amount
PR-1213	100 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied as 1 mg/ml solution containing 25 mM Tris-HCl, pH 8.0, 60 mM NaCl, and 50% glycerol.

Specificity

Immunoreactive with all sera of HIV-1 infected individuals.

Purity

>95% by SDS-PAGE and RP-HPLC.

Description

The protein contains a fragment of HIV-1 core protein p24, amino acids 77-436, molecular weight is 39 kDa. The protein was purified by proprietary chromatographic technique.

Applications

May be used in ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.

Background

HIV belongs to the retrovirus family, distinguished by possession of a viral reverse transcriptase that transcribes viral RNA into DNA which is integrated into the host-cell genome.

The outer envelope is acquired during virion budding and is studded with spikes formed by the two major viral-envelope glycoproteins (the surface protein gp120 and the transmembrane protein gp41).

The central core contains four viral proteins (p24 - the major capsid protein, p17 - a matrix protein, p9, and p7), two copies of the HIV RNA genome (to which p7 and p9 are bound), and three viral enzymes (reverse transcriptase, integrase, and protease) essential for viral replication.

Proteins from the inner core of HIV-1, such as the capsid protein (p24), are involved in crucial processes during the virus life cycle.

Selected References:

- Barletta *et al.* (2004) Lowering the detection limits of HIV-1 viral load using real-time immuno-PCR for HIV-1 p24 antigen. *Am. J. Clin. Pathol.* **122**:20.
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- Bonard *et al.* (2003) Field evaluation of an improved assay using a heat-dissociated p24 antigen for adults mainly infected with HIV-1 CRF02_AG strains in Cote d'Ivoire, West Africa. *J. Acquir. Immune. Defic. Syndr.* **34**:267.
- Eyson *et al.* (2003) Evidence for Gag p24-specific CD4 T cells with reduced susceptibility to R5 HIV-1 infection in a UK cohort of HIVexposed- seronegative subjects. *AIDS.* **17**:2299.
- Ribas *et al.* (2003) Performance of a quantitative human immunodeficiency virus type 1 p24 antigen assay on various HIV-1 subtypes for the follow-up of human immunodeficiency type 1 seropositive individuals. *J. Virol. Methods.* **113**:29.
- Schupbach *et al.* (2003) HIV-1 p24 antigen is a significant inverse correlate of CD4 T-cell change in patients with suppressed viremia under long-term antiretroviral therapy. *J. Acquir. Immune. Defic. Syndr.* **33**:292.