

HIV-1 p17, p24, gp120, gp41

Human Immunodeficiency Virus 1 Antigens
recombinant, *E. coli*

Cat. No.	Amount
PR-1202-1	1 mg

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

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 20 mM PBS pH 7.8, 0.5 M NaCl,
1 mM DTT and 8 M urea.

Application

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

Specificity

Immunoreactive with all sera of HIV-1 infected
individuals.

Purity

>95% by SDS-PAGE and HPLC

Description

The protein contains the full-length sequence of HIV-1
core and envelope proteins: Core protein p17 (Matrix
protein), Core protein p24 (Core antigen) fused with
membrane glycoprotein (gp120) and transmembrane
glycoprotein (gp41).

The fusion protein was purified by proprietary chromato-
graphic technique.

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.

HIV-1 p17, p24, gp120, gp41

Human Immunodeficiency Virus 1 Antigens

recombinant, *E. coli*

Selected References:

- Wu *et al.* (2004) Total chemical synthesis of N-myristoylated HIV-1 matrix protein p17: structural and mechanistic implications of p17 myristoylation. *Proc. Natl. Acad. Sci. USA* **101**:11587.
- Sanders *et al.* (2004) Evolution of the HIV-1 envelope glycoproteins with a disulfide bond between gp120 and gp41. *Retrovirology* **1**:3.
- 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.
- Castilho *et al.* (2005) Heterologous expression, characterization and structural studies of a hydrophobic peptide from the HIV-1 p24 protein. *Peptides* **26**:24.