

## HIV-1 p17, p24, gp120

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

Cat. No.	Amount
PR-1203	100 µg

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.

#### Applications

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

#### Specificity

Immuno reactive with all sera of HIV-1 infected  
individuals.

#### Purity

>95% by SDS-PAGE, and RP-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).

The fusion protein was purified by proprietary chromatographic 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.

#### 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.  
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.  
Metlas *et al.* (2004) HIV-1 gp120 and immune network. *Int. Rev.*  
*Immunol.* **23**:413.