**HIV-1 Envelope**

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

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Amount</th>
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<tr>
<td>PR-1200</td>
<td>100 µg</td>
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*For in vitro use only!*

**Shipping:** shipped on blue ice  
**Storage Conditions:** store at -20 °C  
**Additional Storage Conditions:** avoid freeze/thaw cycles  
**Shelf Life:** 12 months  
**Purity:** > 95 % (HPLC)  
**Form:** liquid (Supplied in 0.5x PBS containing 6 M urea)

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

**Description:**  
This antigen is an *E. coli*-derived recombinant protein that composes all of the reported immunogenic determinants found in gp41 and at the C-terminus of gp120. The gene encoding this fusion protein was synthesized using codons optimized for *E. coli* expression and doesn't represent a linear HIV-1 envelope sequence. HIV-1 is a non-glycosylated, 233 amino acid polypeptide chain, having a molecular mass of 27.28 kDa. Superior diagnostic reagent for HIV-1 and HIV type-O detection. Detects all HIV-1 and HIV-type O infected individuals responding to envelope proteins. 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 envelope glycoprotein gp160 from HIV, containing two non-covalently associated subunits, gp120 and gp41, mediates the membrane fusion activity of the virus. The surface subunit gp120 attaches to the receptor (CD4) and the coreceptor (CCR5 or CXCR4) on the cell surface, and subsequent conformational changes within the Env complex lead to membrane fusion mediated by the transmembrane subunit gp41.

**Activity:**  
Immunoreactive with all sera of HIV-1 and HIV-type O infected individuals and with 60-80% of HIV-2 infected individuals. This antigen was thoroughly tested in various tests as well as ELISA using the standard BBI serum panels. All antibody detection tests on this antigen were as sensitive or more than the standard Abbott third generation tests.

**Selected References:**

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