

## HIV-1 gp41 Recombinant Protein

Recombinant HIV-1 gp41

CATALOG #  
**AAA38329**

HOST  
**E Coli**

### PRODUCT SYNONYMS

HIV-1 gp41; Recombinant HIV-1 gp41; HIV-1 gp41 Recombinant; HIV-1 gp41 recombinant protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli                                                                                                                       |
| Purity/Purification     | Greater than 95.0% as determined by SDS-PAGE.                                                                                |
| Form/Format             | (1mg/1ml)8M urea, 20mM Tris-HCl pH 8.0, 10mM Beta-mercaptoethanol.                                                           |
| Concentration           | 1mg/1ml (varies by lot)                                                                                                      |
| Physical Appearance     | Sterile filtered colorless clear solution.                                                                                   |
| Preparation and Storage | HIV-1 gp41 although stable at 4 degree C for 1 week, should be stored below -18 degree C. Please prevent freeze thaw cycles. |

### ADDITIONAL INFORMATION

#### Related Product Information for HIV-1 gp41 recombinant protein

**Description:** HIV-1 env gp41 Strain IIB is a non-glycosylated 288 amino acids polypeptide chain (a.a. 466-753) having a molecular mass of 32kDa. The protein is fused to B-galactosidase (114 kDa) at the N- terminus.

**Introduction:** 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.

#### Product Categories/Family for HIV-1 gp41 recombinant protein

**Viral Antigens; HUMAN IMMUNODEFICIENCY VIRUS; Viral Antigens; HIV**

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.