

## Product Data Sheet

## envelope glycoprotein gp120 Protein, HIV-1 (AFM77980, HEK293, His)

Cat. No.:	HY-P74119
Synonyms:	Envelope glycoprotein gp160; Env polyprotein; gp120; gp41; env
Species:	Virus
Source:	HEK293
Accession:	AFM77980 (A29-E502)
Gene ID:	/
Molecular Weight:	70-120 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION	
Background	envelope glycoprotein gp120 (gp120) is a glycoprotein exposed on the surface of the HIV envelope. Gp120 is essential for viral infection as it facilitates HIV entry into the host cell and it plays a vital role in attachment to specific cell surface receptors. These receptors are DC-SIGN, Heparan Sulfate Proteoglycan and a specific interaction with the CD4 receptor, particularly on helper T-cells. gp120 may also be facilitating viral persistence and continuing HIV infection by influencing to T cell immune response to the virus. Several mechanisms may be involved in this process of which gp120 binds to the CD4 receptor of T cells which facilitates viral entry into the CD4+ cells and their depletion. Gp120 is shed from the viral membrane and accumulates in lymphoid tissues in significant amounts. It can induce apoptosis and severely alter the immune response to the virus by dampening the antiviral CTL response thus impeding the clearance of HIV <sup>[1]</sup> .

## Caution: Product has not been fully validated for medical applications. For research use only.

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