Recombinant HIV (IIIB) env protein, β-gal-tagged

Cat. No. env-166H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	HIV-1 env gp41 Strain IIIB 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 (114kDa) at the N-terminus.
Species	HIV
Source	E.coli
ProteinLength	288 amino acids polypeptide chain (a.a. 466-753)
Description	Human immunodeficiency virus (HIV) is a retrovirusthat can lead to a condition in which the immune systembegins to fail, leading to opportunistic infections. HIV primarily infects vital cells in the humanimmune systemsuch as helper T cells(specifically CD4+ T cells), macrophagesand 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 apoptosisin infected cells; and thirdly, killing of infected CD4+ T cells by CD8 cytotoxic lymphocytesthat recognize infected cells. When CD4+ T cell numbers decline below a critical level, cell-mediated immunityis 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

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	viruses. Upon entry of the target cell, the viral RNA genomeis converted to double-stranded DNAby a virally encoded reverse transcriptasethat is present in the virus particle. This viral DNA is then integrated into the cellular DNA by a virally encoded integraseso that the genome can be transcribed. Once the virus has infected the cell, two pathways are possible: either the virus becomes latentand 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.
Form	Sterile filtered colorless clear solution. 8M urea, 20mM Tris-HCl pH 8.0, 10mM B-mercaptoethanol.
Molecular Mass	32kDa
Purity	Greater than 95.0% as determined by SDS-PAGE.
Usage	The products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
Stability	HIV-1 gp41 although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.
Shipping	Ice Packs

GENE INFORMATION

Gene Name	env gp160; envelope glycoprotein [Human immunodeficiency virus 1]
Official Symbol	env
Synonyms	env; gp160; envelope glycoprotein; Envelope surface glycoprotein gp160, precursor;

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	hypothetical protein; Envelope surface glycoprotein gp120; Envelope transmembrane domain
Gene ID	155971
Protein Refseq	NP_057856.1
UniProt ID	P04578

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