

Recombinant HIV HIV2gp7 protein

Cat. No. HIV2gp7-195H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	HIV-2 Envelope recombinant composes all of the reported immunogenic determinants found in gp39. The gene encoding this fusion protein was synthesized using codons optimized for E.coli expression and doesn't represent a linear HIV-2 envelope sequence. HIV-2 is a non-glycosylated, 135 amino acids polypeptide chain, having a molecular mass of 16,127kDa, P.I=5.17.
Species	HIV
Source	E.coli
ProteinLength	135 amino acids
Description	HIV-1 and HIV-2 appear to package their RNA differently. HIV-1 binds to any appropriate RNA whereas HIV-2 preferentially binds to mRNA which creates the Gag protein itself. This means that HIV-1 is better able to mutate. HIV-2 is transmitted in the same ways as HIV-1: Through exposure to bodily fluids such as blood, semen, tears and vaginal fluids. Immunodeficiency develops more slowly with HIV-2. HIV-2 is less infectious in the early stages of the virus than with HIV-1. The infectiousness of HIV-2 increases as the virus progresses. Major differences include reduced pathogenicity of HIV-2 relative to HIV-1, enhanced immune control of HIV-2 infection and often some degree of CD4-independence. Despite considerable sequence and phenotypic differences between HIV-1 and 2 envelopes, structurally they are quite similar. Both membrane-anchored proteins eventually form the 6-helix bundles from the N-terminal and C-

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terminal regions of the ectodomain, which is common to many viral and cellular fusion proteins and which seems to drive fusion. HIV-1 gp41 helical regions can form more stable 6-helix bundles than HIV-2 gp41 helical regions however HIV-2 fusion occurs at a lower threshold temperature (25°C), does not require Ca²⁺ in the medium, is insensitive to treatment of target cells with cytochalasin B, and is not affected by target membrane glycosphingolipid composition.

Form	Sterile filtered colorless clear solution. 50mM Tris-HCl & 6M urea, pH 7.2.
Molecular Mass	16.127kDa
Purity	Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.
Applications	HIV-2 Envelope antigen in ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.
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-2 Envelope although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.
Specificity	Immunoreactive with all sera of HIV-2 infected individuals.
Shipping	Ice Packs

GENE INFORMATION

Gene Name HIV2gp7 env polyprotein [Human immunodeficiency virus 2]

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Official Symbol	HIV2gp7
Synonyms	HIV2gp7; env polyprotein
Gene ID	1724717
Protein Refseq	NP_056844.1
UniProt ID	P18094

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