# Recombinant HIV HIV2gp7 protein

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

## SPECIFICATION

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| **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.<br>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

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| **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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