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32-5601: Recombinant HIV-2 Envelope

Description

Source : Escherichia Coli. 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 16,127 Dalton, P.I=5.17. 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-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.

Product Info

Amount :	0.5 mg
Purification :	Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.
Content :	50mM Tris-HCl & 6M urea, pH 7.2.
Storage condition :	HIV-2 Envelope although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.