Recombinant HIV-II Envelope

Catalog No.	CSI15829A	**Quantity:**	100 µg
	CSI15829B		0.5 mg
	CSI15829C		1.0 mg

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-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 Ca^{2+} in the medium, is insensitive to treatment of target cells with cytochalasin B, and is not affected by target membrane glycosphingolipid composition.
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 MW = 16,127 Dalton, P.I=5.17.

Source: *E. coli*

Molecular Mass: 16,127 Dalton

Formulation: 50 mM Tris-HCL + 6M urea, pH-7.

Purity: Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.

Physical Appearance: Sterile filtered colorless clear solution.

Specific Activity: Immunoreactive with all sera of HIV-2 infected individuals.

Applications: HIV-2 Envelope antigen in ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.

Storage & Stability: HIV-2 Envelope although stable at 4°C for 1 week, should be stored below -18°C.
Please prevent freeze thaw cycles.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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