9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

HIV-2 Envelope

HIV-2 Envelope Recombinant
VAG0345

Product Overview

Name	HIV-2 Envelope

Description

HIV-2 Envelope Recombinant

Introduction

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.

Source

Escherichia Coli.

Physical Appearance

Sterile filtered colorless clear solution.

Formulation

50mM Tris-HCl & 6M urea, pH 7.2.

Stability

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

Purity

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

Applications

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

Specificity

Immunoreactive with all sera of HIV-2 infected individuals.

Precautions

HIV-2 Envelope is for research use only and not for use in diagnostic or therapeutic procedures.