

HIV-1 + HIV-2 gp41 + gp120 + gp39 - Purified

Catalog No.:	AR10649PU-S
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	<p>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.</p> <p>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.</p> <p>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.</p>
Source:	<i>E. coli</i>
Format:	<p>Purity: >95.0% pure as determined by HPLC-C4 and 10.0% PAGE analysis.</p> <p>Purification Method: S-Sepharose > Ceramic Hydroxyapatite > S-300 > G-25 Dialysis.</p> <p>Buffer System: 100 mM NaPO₄, pH 6, 0.05% SDS</p>
Applications:	<p>Antigen in ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.</p> <p>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
Description:	<p>The <i>E. coli</i> derived recombinant protein contains the C- terminus of gp120 and most of gp41. The protein is conjugated to a 23 amino acids synthetic peptide derived from pg36 of HIV-2.</p> <p>Specificity: Immunoreactive with all sera of HIV-1, HIV type O and HIV-2 infected individuals.</p>
Storage:	<p>Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.</p> <p>Avoid repeated freezing and thawing.</p> <p>Shelf life: one year from despatch.</p>