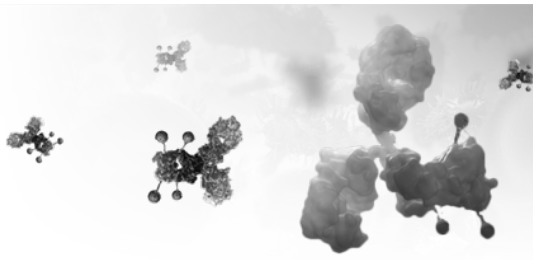

Recombinant HIV type 1 Envelope Protein gp41/gp120 [His] (DAG1511)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	HIV-1 envelope His Tag Recombinant-is an E.coli-derived 74.18 kDa protein that contains immunodominant regions of gp120 C-terminus and gp41 N-terminus of the HIV1 and having 6X His tag protein on the N-terminus.
Species	HIV
Purity	Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.
Conjugate	His
Applications	HIV-1 Envelope antigen is suitable for ELISA and Western blots, excellent antigen for early detection of HIV seroconvertors with minimal specificity problems.
Format	Sterile filtered colorless clear solution.
Size	100 µg, 500 µg, 1 mg
Buffer	20mM sodium carbonate, pH-9.6 and 0.02% sodium azide.
Preservative	0.02% Sodium Azide
Storage	2-8°C short term, -20°C long term

BACKGROUND

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

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	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.
Keywords	HIV-2 Envelope 201 Antigen; Retroviridae; Lentivirus; Human immunodeficiency virus 2

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