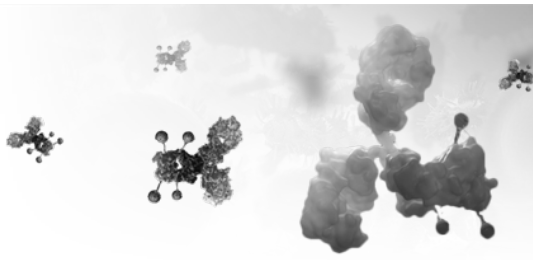

Recombinant HIV type 2 Glycoprotein 36 [His] (DAG1561)

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

PRODUCT INFORMATION

Product Overview	HIV-2 gp36 His tag recombinant- is a 64 kDa protein and contains the sequence of HIV-2 envelope immunodominant regions gp36 having a 6X His tag / chaperone protein on the N-terminus.
Antigen Description	Despite extensive sequence heterology between HIV-1 and HIV-2, the structures of the HIV-1 and HIV-2 envelope proteins are similar, with HIV-2 gp36 mediating the fusogenic activity of the HIV-2 envelope, and representing the structural and functional equivalent of HIV-1 gp41. The immunodominant regions of gp41 and gp36 are. however, sufficiently distinct such that antibodies generated against HIV-1 and HIV-2 do not cross-react significantly with their respective cognate gp41 and gp36 targets. As such recombinant gp36 is commonly used in diagnostic immunossays to distinguish between HIV-1 and HIV-2 infections.
Species	HIV
Purity	Greater than 95.0% as determined by HPLC analysis and SDS-PAGE.
Conjugate	His
Applications	HIV-2 gp36 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, 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

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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 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	Gp36; HIV 2; Human immunodeficiency virus 2; Human Immunodeficiency Virus Type 2; HIV-2 Gp36; Human Immunodeficiency Virus Type 2 Gp36; Retroviridae; Lentivirus

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