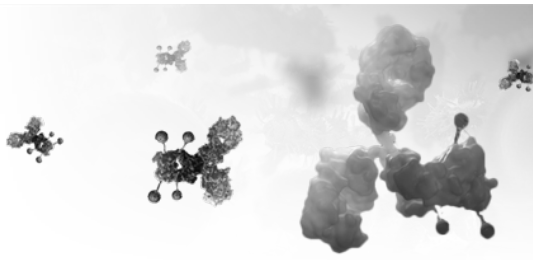

HIV type 2 Envelope protein (aa 390 - 702) (DAG570)

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

PRODUCT INFORMATION

Product Overview	Recombinant Human Immunodeficiency Virus Type 2 (HIV-2) envelope antigen (amino acids 390-702). 34kDa with Beta-galactosidase (114kDa) fused at the N-terminus, was expressed in E. coli.
Species	HIV
Purity	> 95% pure (SDS-PAGE (Bradford method))
Conjugate	Beta-galactosidase
Applications	ELISA, Colloidal Gold and Latex Beads. Western Blot with a suggested dilution of 1:1,000. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.
Format	Purified, Liquid
Concentration	1 mg/ml (OD280nm)
Buffer	0.01M Na2CO3; 0.01M Na3EDTA, 0.014M beta- mercaptoethanol; 0.05% Tween 20.
Preservative	None
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

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

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