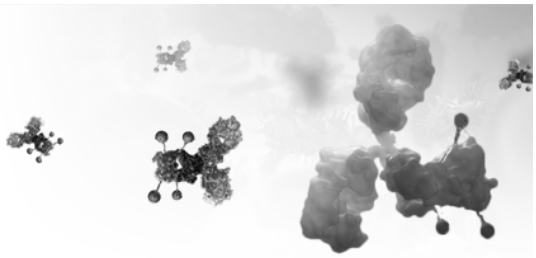

Recombinant HIV type 1 (CN54) Glycoprotein 140 (a.a. 29-676) [Biotin, His] (DAG1977)

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

PRODUCT INFORMATION

Product Overview	Biotin labeled C-terminal 6xHis tagged gp140 (HIV-1/Clade B'/C(CN54)) protein
Antigen Description	Human Immunodeficiency Virus (HIV) can be divided into two major types, HIV type 1 (HIV-1) and HIV type 2 (HIV-2). HIV-1 is related to viruses found in chimpanzees and gorillas living in western Africa. HIV-2 is related to viruses found in sooty mangabeys. HIV-1 viruses may be further divided into groups. The HIV-1 group M viruses predominate and are responsible for the AIDS pandemic. Some of the HIV-1 group M subtypes are known to be more virulent or are resistant to different medications. HIV-2 viruses are thought to be less virulent and transmissible than HIV-1 M group viruses.The HIV-1 envelope glycoprotein gp160, also known as Glycoprotein 160, is cleaved into two chains: the surface protein gp120 and the transmembrane protein gp41. The mature envelope protein (Env) consists of a homotrimer of non-covalently associated gp120-gp41 heterodimers. The surface protein gp120 attaches the virus to the host lymphoid cell by binding to the primary receptor CD4. This interaction induces a structural rearrangement creating a high affinity binding site for a chemokine coreceptor like CXCR4 and/or CCR5. Surface protein gp120 is a ligand for CD209 / DC-SIGN and CLEC4M / DC-SIGNR. It may target the virus to gut-associated lymphoid tissue (GALT) by binding host ITGA4/ITGB7 (alpha-4/beta-7 integrins), a complex that mediates T-cell migration to the GALT. The transmembrane protein gp41 (TM) acts as a class I viral fusion protein, and membranes fusion leads to delivery of the nucleocapsid into the cytoplasm. The external domains of the HIV-1 envelope glycoprotein (gp120 and the gp41 ectodomain, collectively known as gp140) contain all known viral neutralization epitopes.
Species	HIV
Purity	≥95%
Conjugate	Biotin, His
Applications	antibody ELISA, protein labeling, etc

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Concentration	0.5 mg/ml
Size	50 µg
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction	Human immunodeficiency virus (HIV) is a lentivirus (a member of the retrovirus family) that causes acquired immunodeficiency syndrome (AIDS), a condition in humans in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive. Infection with HIV occurs by the transfer of blood, semen, vaginal fluid, pre-ejaculate, or breast milk. Within these bodily fluids, HIV is present as both free virus particles and virus within infected immune cells. The four major routes of transmission are unsafe sex, contaminated needles, breast milk, and transmission from an infected mother to her baby at birth (perinatal transmission). Screening of blood products for HIV has largely eliminated transmission through blood transfusions or infected blood products in the developed world.
Keywords	HIV-1 gp140; HIV1 gp140; Envelope surface glycoprotein gp140; Glycoprotein 140; gp140; gp140 glycoprotein; Human Immunodeficiency Virus 1; SU; Surface protein; Retroviridae; Lentivirus; human immunodeficiency virus

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