



# Recombinant HIV type 1 (ML274.W0M.ENV.F1) Glycoprotein 120 (a.a. 32-523) [His] (DAG2077)

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

## PRODUCT INFORMATION

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| <b>Product Overview</b>    | 6xHis tagged HIV-1 gp120 (MK184.W0M, ENV.G3)(Clade A) protein (a.a.35-500)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Antigen Description</b> | The HIV-1 surface protein gp120, also known as Glycoprotein 120, SU, and gp120 is not anchored to the viral envelope, but associates with the extravirion surface through its binding to TM. 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. Interaction between gp120 and ITGA4/ITGB7 would allow the virus to enter GALT early in the infection, infecting and killing most of GALT's resting CD4+ T-cells. This T-cell depletion is believed to be the major insult to the host immune system leading to AIDS. |
| <b>Species</b>             | HIV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purity</b>              | ≥ 95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Conjugate</b>           | His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Applications</b>        | WB standard, antibody ELISA, etc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Format</b>              | Each vial contains 100 µg purified protein in PBS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Concentration</b>       | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Size</b>                | 100 µg, 1 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Preservative</b>        | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

# BACKGROUND

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| Introduction | The human immunodeficiency virus (HIV) is a lentivirus (slowly replicating retrovirus) that causes the 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. Without treatment, average survival time after infection with HIV is estimated to be 9 to 11 years, depending on the HIV subtype. 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. |
| Keywords     | Glycoprotein 120; gp120; SU; Surface protein; HIV1 gp120; Human Immunodeficiency Virus 1 gp120                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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