

Rabbit Anti-HIV-1 GP120 Polyclonal Antibody

Cat. No. CPB-011RH **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species HIV

Source Rabbit

Immunogen 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 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.

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Immunogen	Recombinant HIV-1 GP120 protein.
Antibody Type	Rabbit Polyclonal Antibody.
Ig Type	Rabbit IgG.
Formulation	0.2 µm filtered solution in PBS with 5% trehalose.
Preparation	Produced in rabbits immunized with purified, human cell-derived, recombinant HIV-1 gp120 (rv GP120; Ala 29 - Glu 503). GP120 specific IgG was purified by HIV-1 gp120 affinity chromatography.
Western Blot	This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect HIV-1 gp120 in WB. Using a DAB detection system, the detection limit for HIV-1 gp120 is approximately 1 ng/lane under non-reducing conditions and 0.5 ng/lane under reducing conditions.
DirectELISA	This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect HIV-1 gp120. The detection limit for HIV-1 gp120 is 0.00245 ng/well.
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -70°C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.