



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Goat Antibody to Human Immunodeficiency Virus Type 1 (HIV-1), gp41

Catalog No.
MD-05-0249

Isotype
Goat IgG

Species
Virus

Description

The attachment of enveloped viruses to cells and the fusion of viral and cellular membranes are critical early events in the HIV viral infection. This process is mediated by envelope glycoproteins (gp) on the surface of the virus. The human immunodeficiency virus type 1 (HIV-1) envelope glycoprotein, gp160, is proteolytically cleaved into gp120 and gp41, which remain noncovalently associated with one another. gp120 is one of the proteins that forms the envelope of HIV. gp120 projects from the surface of HIV and binds to the CD4 molecule on helper T cells. gp120 has been a logical experimental HIV vaccine because the outer envelope is the first part of the virus that encounters antibody. gp41 is embedded in the outer envelope of HIV that anchors gp120. gp41 also plays a key role in HIV's infection of CD4+ T cells by facilitating the fusion of the viral and cell membranes. The nomenclature of the gp proteins describes their respective molecular masses (e.g., gp160, gp120, gp41).

Specificity

a.a. 546-a.a.682 sequence from strain HxB2. Reactive with gp41 in Western blot immunoassay. Antiserum does not cross-react with human T or B cells. Antiserum has not been adsorbed to remove anti-beta-galactosidase activity.

Preparation

Immunogen was purified from recombinant (*P. Pastoris*) ectodomain of gp41 (glycosylated) by sodium sulfate precipitation and ion-exchange chromatography.

Formulation

4-5mg/ml (OD_{280nm}, E^{0.1%} = 1.4) in 0.01M PBS, pH 7.2 with 0.1% Sodium azide. No stabilizing proteins have been added.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Applications

Table Summary of antibody applications and working conditions

| Options Functions | YES | NO | Not determined | Recommended Work dilution or concentration |
|--------------------------------|-----|----|----------------|--|
| ELISA | | | • | |
| Western Blotting | • | | | |
| Immunohistology - frozen | | | • | |
| Immunohistology - paraffin | | | • | |
| Immunohistology - resin | | | • | |
| Immunoprecipitation | | | • | |
| Flow Cytometry | | | • | |
| Immunofluorescence staining | | | • | |
| Neutralization | | | • | |

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Purification

Greater than 95%.

Stability

Short-term (up to 6 months) store at 2-8°C. Long term, aliquot and store at -20°C. **Avoid multiple freeze/thaw cycles. Centrifuge before opening to ensure complete recovery of vial contents.**

Warnings

This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1 – 1.0 %. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

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