BACKGROUND

The human immunodeficiency virus type 1 (HIV-1) uses an enzyme HIV-1 Integrase to carry out the integration of its viral DNA into the host chromosome, thereby tricking the host cell machinery into making viral proteins. HIV-1 Integrase is a viral protein that catalyzes the first two steps of the three-step DNA integration process and belongs to the superfamily of polynucleotidyl transferases. The integration of HIV-1 DNA into the host chromosome is achieved by the integrase protein performing a series of DNA cleaving and ligation reactions. The C-terminal domain of HIV-1 Integrase forms a homodimer, consisting of two structures that are similar to Src-homology 3 (SH3) domains, while the N-terminal domain of HIV-1 Integrase contains a pair of His and Cys residues (the HHCC motif) that are conserved among retroviral integrases. Zinc binds to the HHCC motif and supports the folded state of the N-terminus.

REFERENCES


SOURCE

HIV-1 Integrase (IN-3) is a mouse monoclonal antibody raised against HIV-1 Integrase.

PRODUCT

Each vial contains 200 µg IgG2a in 1.0 mL PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HIV-1 Integrase (IN-3) is recommended for detection of Pol Integrase of HIV-1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HIV-1 Integrase: 32 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.