



HIV-1 p55/p17 (3A1): sc-52439

BACKGROUND

Human immunodeficiency virus (HIV) is a retrovirus that causes acquired immune deficiency syndrome (AIDS), a condition in humans in which the immune system begins to fail, leading to life-threatening opportunistic infections. HIV mainly infects vital cells in the human immune system such as helper T cells (specifically CD4⁺ T cells), macrophages and dendritic cells. Two species of HIV infect humans: HIV-1 and HIV-2, with HIV-1 being the more virulent strain. p17 is a structural matrix protein of HIV-1 that enters the nucleus shortly after viral synthesis. p17 may transfer viral nucleocapsids from the nuclei to plasma membranes, which is the location of viral assembly. p17 may also play a role in HIV-1 pathogenesis, since anti-p17 antibodies are used as a serological marker of disease progression, thereby implicating the protein for therapeutic HIV-1 immunizations. p55 represents a GAG protein precursor in HIV-1.

REFERENCES

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3. Bukrinskaia, A.G., et al. 1993. HIV-1 p17 matrix protein genomic viral RNA. *Mol. Biol.* 27: 49-57.
4. Chargelegue, D., et al. 1993. A longitudinal study of the in HIV-1⁺ patients with haemophilia: titre and avidity. *Clin. Exp. Immunol.* 93: 331-336.
5. Graham, S., et al. 1993. Immunodominant epitopes of HIV-1 p17 and p24. *AIDS Res. Hum. Retroviruses* 8: 1781-1788.
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SOURCE

HIV-1 p55/p17 (3A1) is a mouse monoclonal antibody raised against recombinant full length HIV-1 p55/p17.

STORAGE

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

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as fluorescein conjugate for flow cytometry, sc-52439 FITC, 100 tests.

APPLICATIONS

HIV-1 p55/p17 (3A1) is recommended for detection of p55 and p17 of HIV-1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of HIV-1 p55: 55 kDa.

Molecular Weight of HIV-1 p17: 17 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) 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.

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.