SANTA CRUZ BIOTECHNOLOGY, INC.

HIV-1 p24 (2N34): sc-130536

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. p24 is a viral protein encoded by the HIV-1 $G_{\alpha\gamma}$ gene that provides structural elements of the virus along with p6, p7 and p17. Specifically, p24 makes up the viral capsid, p6 and p7 are the components of the nucleocapsid, and p17 provides a protective matrix.

REFERENCES

1. Barbouche, R.M., et al. 2003. False-positive HIV-1 p24 antigenemia with unusual pattern of neutralization. Arch. Inst. Pasteur Tunis 76: 11-12.
2. Barletta, J.M., et al. 2004. Lowering the detection limits of HIV-1 viral load using real-time immuno-PCR for HIV-1 p24 antigen. Am. J. Clin. Pathol. 122: 20-27.
3. Hou, J., et al. 2004. Preparation and characterization of the monoclonal antibody against HIV-1 p24 antigen. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi 20: 699-701.
4. Coleman, J.K., et al. 2005. HIV-1 p24 vaccine protects cats against feline immunodeficiency virus infection. AIDS 19: 1457-1466.
5. Kran, A.M., et al. 2005. Reduced viral burden amongst high responder patients following HIV-1 p24 peptide-based therapeutic immunization. Vaccine 23: 4011-4015.
6. Lottersberger, J., et al. 2005. Antibody recognition of synthetic peptides mimicking immunodominant regions of HIV-1 p24 and p17 proteins. Rev. Argent. Microbiol. 36: 151-157.
7. Schüpbach, J., et al. 2005. HIV-1 p24 may persist during long-term highly active antiretroviral therapy, increases little during short treatment breaks, and its rebound after treatment stop correlates with $CD4^+$ T cell loss. J. Acquir. Immune Defic. Syndr. 40: 250-256.
8. Knuchel, M.C., Tet al. 2006. Ultrasensitive quantitative HIV-1 p24 antigen assay adapted to dried plasma spots to improve treatment monitoring in low-resource settings. J. Clin. Virol. 36: 64-67.
9. Voltersvik, P., et al. 2006. Cystatin A and HIV-1 p24 antigen expression in tonsillar lymphoid follicles during HIV-1 infection and during highly active antiretroviral therapy. J. Acquir. Immune Defic. Syndr. 41: 277-284.

SOURCE

HIV-1 p24 (2N34) is a mouse monoclonal antibody raised against recombinant p24 protein of HIV-1 (B subtype) origin with epitope mapping to amino acids 74-84.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HIV-1 p24 (2N34) is recommended for detection of Gag p24 of HIV-1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of HIV-1 p24: 24 kDa.

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 for detailed protocols and support products.

CONJUGATES

See **HIV-1 p24 (24-4): sc-69728** for HIV-1 p24 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.