SANTA CRUZ BIOTECHNOLOGY, INC.

HIV-1 Vif (564): sc-69732

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Viral infectivity factor (Vif) is a nonstructural HIV-1 protein that acts during virus assembly by an unknown mechanism, enhancing viral infectivity. Inhibiting HIV-1 Vif by intrabody expression produces viral particles that do not complete reverse transcription. Recent studies suggest that HIV-1 Vif enhances infectivity by overcoming an inhibitory factor present in non-permissive cells. HIV-1 Vif interacts with $G_{\alpha\gamma}$, viral protease, HP68, spermine, Triad 3 and RNA. HIV-1 Vif exists as a soluble cytoplasmic form and as a membrane bound form that tightly associates with the cytoplasmic side of cellular membranes. HIV-1 Vif is a protein that can form multimers that accumulate in the cytoplasm of HIV-1 infected cells.

REFERENCES

1. Goncalves, J., Jallepalli, P. and Gabuzda, D.H. 1994. Subcellular localization of the Vif protein of human immunodeficiency virus type 1. J. Virol. 68: 704-712.
2. Goncalves, J., Shi, B., Yang, X. and Gabuzda, D. 1995. Biological activity of human immunodeficiency virus type 1 Vif requires membrane targeting by C-terminal basic domains. J. Virol. 69: 7196-7204.
3. Yang, S., Sun, Y. and Zhang, H. 2001. The multimerization of human immunodeficiency virus type I Vif protein: a requirement for Vif function in the viral life cycle. J. Biol. Chem. 276: 4889-4893.
4. Goncalves, J., Silva, F., Freitas-Vieira, A., Santa-Marta, M., Malho, R., Yang, X., Gabuzda, D. and Barbas, C. III. 2002. Functional neutralization of HIV-1 Vif protein by intracellular immunization inhibits reverse transcription and viral replication. J. Biol. Chem. 277: 32036-32045.
5. Lake, J., Carr, J., Feng, F., Mundy, L., Burrell, C. and Li, P. 2004. The role of Vif during HIV-1 infection: interaction with novel host cellular factors. J. Clin. Virol. 26: 143-152.

SOURCE

HIV-1 Vif (564) is a mouse monoclonal antibody raised against HIV-1 Vif.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HIV-1 Vif (564) is recommended for detection of Vif of HIV-1 origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

RESEARCH USE

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

STORAGE

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

SELECT PRODUCT CITATIONS

1. Augustine, T., Chaudhary, P., Gupta, K., Islam, S., Ghosh, P., Santra, M.K. and Mitra, D. 2017. Cyclin F/FBXO1 interacts with HIV-1 viral infectivity factor (Vif) and restricts progeny virion infectivity by ubiquitination and proteasomal degradation of Vif protein through $SCF^{cyclin\ F}$ E3 ligase machinery. J. Biol. Chem. 292: 5349-5363.

PROTOCOLS

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