HIV-1 Vif (vK-20): sc-25927



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 Gag, 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

- Lorentzen, E.U., Wieland, U., Kühn, J.E. and Braun, R.W. 1991. In vitro cleavage of HIV-1 Vif RNA by a synthetic ribozyme. Virus Genes 5: 17-23.
- Wieland, U., Kratschmann, H., Kehm, R., Kühn, J.E., Näher, H., Kramer, M.D. and Braun, R.W. 1991. Antigenic domains of the HIV-1 Vif protein as recognized by human sera and murine monoclonal antibodies. AIDS Res. Hum. Retroviruses 7: 861-867.
- Sakai, K., Ma, X.Y., Gordienko, I., Volsky, D.J. 1991. Recombinational analysis of a natural noncytopathic human immunodeficiency virus type 1 (HIV-1) isolate: role of the Vif gene in HIV-1 infection kinetics and cytopathicity.
 J. Virol. 65: 5765-5773.
- Gabuzda, D.H., Li, H., Lawrence, K., Vasir, B.S., Crawford, K. and Langhoff, E. 1994. Essential role of Vif in establishing productive HIV-1 infection in peripheral blood T lymphocytes and monocyte/macrophages. J. Acquir. Immune Defic. Syndr. 7: 908-915.
- 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.
- 6. 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.
- 7. Yang, S., Sun, Y. and Zhang, H. 2001. The multimerization of human immunodeficiency virus type 1 Vif protein: a requirement for Vif function in the viral life cycle. J. Biol. Chem. 276: 4889-4893.
- 8. 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.
- 9. 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 (vK-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HIV-1 Vif.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-25927 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HIV-1 Vif (vK-20) is recommended for detection of Vif of HIV-1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2033 and Western Blotting Luminol Reagent: sc-2048.

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.



Try **HIV-1 Vif (564): sc-69732**, our highly recommended monoclonal alternative to HIV-1 Vif (vK-20).

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