SANTA CRUZ BIOTECHNOLOGY, INC.

SIV Nef (vC-15): sc-19412

BACKGROUND

The accessory Nef protein of HIV and SIV is essential for viral pathogenesis. Nef is a 27-34 kDa myristoylated protein that is unique to primate lentiviruses. A critical role for Nef in development of AIDS in humans is suggested by the observation that some individuals with a long-term nonprogressive HIV-1 infection are infected with viruses carrying naturally occurring Nef deletions. The Nef protein of primate lentiviruses acts as an important virulence factor *in vivo* both in monkeys and in humans. Among a human cohort of long-term non-progressors, several Nef defective HIV1 viruses have been isolated, indicating that Nef may accelerate HIV progression and disease in humans. *In vitro,* Nef can exert at least three kinds of effects: downregulation of CD4 and MHC class I, stimulation of virion infectivity and alteration of signal transduction pathways. To accomplish these effects, Nef interacts with a series of cellular partners including CD4, components of the adaptor complexes AP-1 and AP-2, and several protein kinases. Nef often functions as a connector between targets and effectors.

REFERENCES

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2. Remkema, G.H. and Saksela, K. 2000. Interactions of HIV-1 Nef with cellular signal transducing proteins. Front. Biosci. 5: 268-283.
3. Swigut, T., Iafrate, A.J., Muench, J., Kirchhoff, F. and Skowronski, J. 2000. Simian and human immunodeficiency virus Nef proteins use different surfaces to downregulate class I major histocompatibility complex antigen expression. J. Virol. 74: 5691-5701.
4. Geyer, M., Fackler, O.T. and Peterlin, B.M. 2001. Structure-function relationships in HIV-1 Nef. EMBO Rep. 2: 580-585.
5. Fackler, O.T., Wolf, D., Weber, H.O., Laffert, B., D'Aloja, P., Schuler-Thurner, B., Geffin, R., Saksela, K., Geyer, M., Peterlin, B.M., Schuler, G. and Baur, A.S. 2001. A natural variability in the proline-rich motif of Nef modulates HIV-1 replication in primary T cells. Curr. Biol. 11: 1294-1299.

SOURCE

SIV Nef (vC-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SIV Nef.

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-19412 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SIV Nef (vC-15) is recommended for detection of Nef of SIV 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-2333 and Western Blotting Luminol Reagent: sc-2048.

PROTOCOLS

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