

RIP/Rab (N-18): sc-1423

BACKGROUND

HIV-1 Rev is the prototype of a class of retroviral regulatory proteins that control the sequence-specific nuclear export and translation of a class of incompletely spliced HIV-1 mRNAs that encode viral structural proteins. In the absence of Rev, these late viral RNAs remain sequestered in the nucleus until they are either spliced or degraded. The protein designated Rev interacting protein (RIP) or Rev/Rex activation domain-binding protein (Rab) contains 562 amino acids with a predicted molecular weight of 58 kDa. RIP/Rab has been identified as a cellular cofactor that binds not only to the HIV-1 Rev activation domain, but also to equivalent domains of other Rev and Rex proteins. On the basis of these findings it has been speculated that RIP/Rab is required for the Rev response and thus for HIV-1 replication.

REFERENCES

1. Ragheb, J.A., et al. 1995. Analysis of trans-dominant mutants of the HIV type 1 Rev protein for their ability to inhibit Rev function, HIV type 1 replication, and their use as anti-HIV gene therapeutics. *Aids Res. Human Retro.* 11: 1343-1353.
2. Fischer, U., et al. 1995. The HIV-1 Rev activation domain is a nuclear export signal that accesses an export pathway used by specific cellular RNAs. *Cell* 82: 475-483.
3. Wu, B.Y., et al. 1995. Regulation of human retroviral latency by the NFκB/IKB family: inhibition of human immunodeficiency virus replication by IκB through a Rev-dependent mechanism. *Proc. Natl. Acad. Sci. USA* 92: 1480-1484.
4. Bogerd, et al. 1995. Identification of a novel cellular cofactor for the Rev/Rex class of retroviral regulatory proteins. *Cell* 82: 485-494.
5. Fritz, C.C., et al. 1995. A human nucleoporin-like protein that specifically interacts with HIV Rev. *Nature* 376: 530-533.
6. Bevec, D., et al. 1996. Inhibition of HIV-1 replication in lymphocytes by mutants of the Rev cofactor eIF-5A. *Science* 271: 1858-1860.
7. Kubota, S., et al. 1996. Nuclear preservation and cytoplasmic degradation of human immunodeficiency virus type 1 Rev protein. *J. Virol.* 70: 1282-1287.

CHROMOSOMAL LOCATION

Genetic locus: AGFG1 (human) mapping to 2q36.3; Agfg1 (mouse) mapping to 1 C5.

SOURCE

RIP/Rab (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of RIP/Rab of human origin.

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-1423 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RIP/Rab (N-18) is recommended for detection of RIP/Rab of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

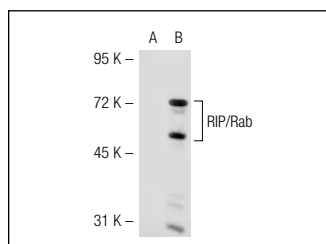
RIP/Rab (N-18) is also recommended for detection of RIP/Rab in additional species, including bovine.

Suitable for use as control antibody for RIP/Rab siRNA (h): sc-40913, RIP/Rab siRNA (m): sc-40914, RIP/Rab shRNA Plasmid (h): sc-40913-SH, RIP/Rab shRNA Plasmid (m): sc-40914-SH, RIP/Rab shRNA (h) Lentiviral Particles: sc-40913-V and RIP/Rab shRNA (m) Lentiviral Particles: sc-40914-V.

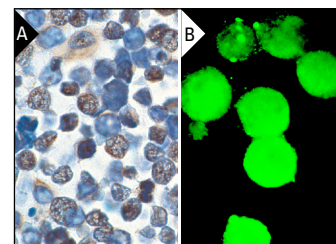
Molecular Weight of RIP/Rab: 58 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, human lymphoma or Jurkat whole cell lysate: sc-2204.

DATA



RIP/Rab (N-18): sc-1423. Western blot analysis of RIP/Rab expression in non-transfected: sc-117752 (A) and mouse RIP/Rab transfected: sc-123208 (B) 293T whole cell lysates.



RIP/Rab (N-18): sc-1423. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymphoma (A) and immunofluorescence staining of methanol-fixed K-562 cells (B) showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Henderson, B.R., et al. 1997. Interactions between HIV Rev and nuclear import and export factors: the Rev nuclear localisation signal mediates specific binding to human Importin β. *J. Mol. Biol.* 274: 693-707.

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.



Try **RIP/Rab (H-2): sc-166651**, our highly recommended monoclonal alternative to RIP/Rab (N-18).