SANTA CRUZ BIOTECHNOLOGY, INC.

RIP/Rab (H-2): sc-166651

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. 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. Hum. Retroviruses 11: 1343-1353.
2. Wu, B.Y., et al. 1995. Regulation of human retroviral latency by the NFκB/IκB family: inhibition of human immunodeficiency virus replication by IκB through a Rev-dependent mechanism. Proc. Natl. Acad. Sci. USA 92: 1480-1484.
3. Bogerd, H.P., et al. 1995. Identification of a novel cellular cofactor for the Rev/Rex class of retroviral regulatory proteins. Cell 82: 485-494.

CHROMOSOMAL LOCATION

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

SOURCE

RIP/Rab (H-2) is a mouse monoclonal antibody raised against amino acids 263-562 mapping at the C-terminus of RIP/Rab of human origin.

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.

RIP/Rab (H-2) is available conjugated to agarose (sc-166651 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166651 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166651 PE), fluorescein (sc-166651 FITC), Alexa Fluor® 488 (sc-166651 AF488), Alexa Fluor® 546 (sc-166651 AF546), Alexa Fluor® 594 (sc-166651 AF594) or Alexa Fluor® 647 (sc-166651 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166651 AF680) or Alexa Fluor® 790 (sc-166651 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

RIP/Rab (H-2) is recommended for detection of RIP/Rab of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

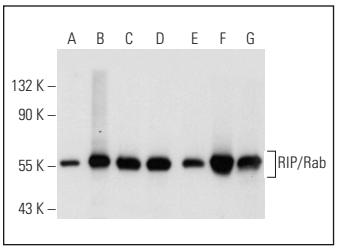
Molecular Weight of RIP/Rab: 58 kDa.

Positive Controls: RIP/Rab (m): 293T Lysate: sc-123208, Jurkat whole cell lysate: sc-2204 or SK-BR-3 cell lysate: sc-2218.

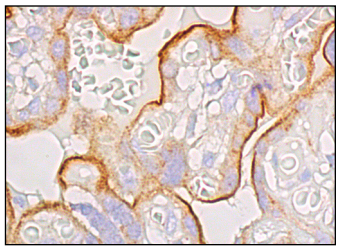
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RIP/Rab (H-2): sc-166651. Western blot analysis of RIP/Rab expression in non-transfected 293T: sc-117752 (**A**), mouse RIP/Rab transfected 293T: sc-123208 (**B**), K-562 (**C**), Jurkat (**D**), SK-BR-3 (**E**), NIH/3T3 (**F**) and KNRK (**G**) whole cell lysates.



RIP/Rab (H-2): sc-166651. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and membrane staining of trophoblastic cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

SELECT PRODUCT CITATIONS

1. Eisfeld, A.J., et al. 2011. Human immunodeficiency virus Rev-binding protein is essential for influenza a virus replication and promotes genome trafficking in late-stage infection. J. Virol. 85: 9588-9598.
2. Traub, L.M. 2019. A nanobody-based molecular toolkit provides new mechanistic insight into clathrin-coat initiation. Elife 8 pii: e41768.

RESEARCH USE

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