

RAIN (D-14): sc-240804

BACKGROUND

RAIN, also known as RASIP1 (Ras-interacting protein 1), is a 963 amino acid protein that contains one dilute domain and one Ras-associating domain. The RAIN protein is highly expressed in heart and detected at lower levels in placenta and pancreas. RAIN interacts with H-Ras, Rap 1A, Rap 2, R-Ras, Raf-1 and TC 21, as well as with Ras family members that have been activated by GTP binding. RAIN interacts with Ras in a GTP-dependent manner *in vitro* and *in vivo*, requiring an intact Ras core effector-binding domain for this interaction, and thus fits the definition of a Ras effector. Unlike other Ras effectors, RAIN localizes to the perinuclear, juxta-Golgi vesicles in intact cells and is recruited to the Golgi by activated Ras. Containing 12 exons, the RAIN gene is conserved in canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 19q13.33.

REFERENCES

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- Mitin, N., Konieczny, S.F. and Taparowsky, E.J. 2006. Ras and the RAIN/RasIP1 effector. *Meth. Enzymol.* 407: 322-335.
- Jin, M., Takahashi, M., Moto, M., Muguruma, M., Ito, K., Watanabe, K., Kenmochi, Y., Kono, T., Hasumi, K. and Mitsumori, K. 2007. Carcinogenic susceptibility of RasH2 mice to troglitazone. *Arch. Toxicol.* 81: 883-894.
- Xu, K., Chong, D.C., Rankin, S.A., Zorn, A.M. and Cleaver, O. 2009. Rasip1 is required for endothelial cell motility, angiogenesis and vessel formation. *Dev. Biol.* 329: 269-279.

CHROMOSOMAL LOCATION

Genetic locus: RASIP1 (human) mapping to 19q13.33; Rasip1 (mouse) mapping to 7 B4.

SOURCE

RAIN (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RAIN 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-240804 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.

APPLICATIONS

RAIN (D-14) is recommended for detection of RAIN of mouse, rat 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).

RAIN (D-14) is also recommended for detection of RAIN in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for RAIN siRNA (h): sc-97326, RAIN siRNA (m): sc-152688, RAIN shRNA Plasmid (h): sc-97326-SH, RAIN shRNA Plasmid (m): sc-152688-SH, RAIN shRNA (h) Lentiviral Particles: sc-97326-V and RAIN shRNA (m) Lentiviral Particles: sc-152688-V.

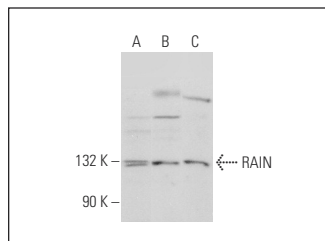
Molecular Weight of RAIN: 103 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

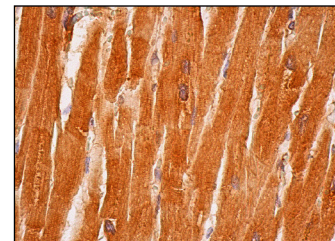
RECOMMENDED SECONDARY REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



RAIN (D-14): sc-240804. Western blot analysis of RAIN expression in K-562 (A), Jurkat (B) and Hep G2 (C) whole cell lysates.



RAIN (D-14): sc-240804. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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