

RCE1 (T-21): sc-133951

BACKGROUND

RCE1, a ubiquitously expressed, integral membrane endoprotease, facilitates membrane targeting of Ras and other prenylated proteins by releasing the last three carboxy-terminal amino acids, AAX, of the CAAX motif. Human RCE1 activity is specific for prenylated, farnesylated and geranylated proteins such as K-Ras, N-Ras, H-Ras, Rap 1B and G_v1. Inhibition of RCE1 leads to retardation of cell growth, limitation of Ras-induced cell transformation and sensitization of tumor cells to a farnesyltransferase inhibitor. RCE1 belongs to the U48 peptidase family.

REFERENCES

- Otto, J.C., et al. 1999. Cloning and characterization of a mammalian prenyl protein-specific protease. *J. Biol. Chem.* 274: 8379-8382.
- Bergo, M.O., et al. 2002. Absence of the CAAX endoprotease RCE1: effects on cell growth and transformation. *Mol. Cell. Biol.* 22: 171-181.
- Aiyagari, A.L., et al. 2003. Hematologic effects of inactivating the Ras processing enzyme RCE1. *Blood* 101: 2250-2252.
- Cadinanos, J., et al. 2003. Identification, functional expression and enzymic analysis of two distinct CAAX proteases from *Caenorhabditis elegans*. *Biochem J.* 370: 1047-1054.

CHROMOSOMAL LOCATION

Genetic locus: RCE1 (human) mapping to 11q13.1; Rce1 (mouse) mapping to 19 A.

SOURCE

RCE1 (T-21) is a Protein A purified rabbit polyclonal antibody raised against synthetic RCE1 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

RCE1 (T-21) is recommended for detection of RCE1 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).

Suitable for use as control antibody for RCE1 siRNA (h): sc-106496, RCE1 siRNA (m): sc-152772, RCE1 shRNA Plasmid (h): sc-106496-SH, RCE1 shRNA Plasmid (m): sc-152772-SH, RCE1 shRNA (h) Lentiviral Particles: sc-106496-V and RCE1 shRNA (m) Lentiviral Particles: sc-152772-V.

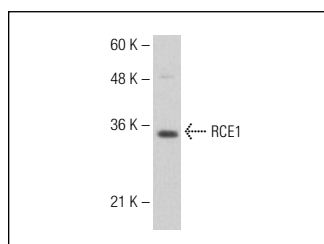
Molecular Weight of RCE1: 36 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



RCE1 (T-21): sc-133951. Western blot analysis of RCE1 expression in Hep G2 whole cell lysate.

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.