

RCE1 (N-20): sc-130250

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 Gγ 1. 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

1. Otto, J.C., Kim, E., Young, S.G., Casey, P.J. 1999. Cloning and characterization of a mammalian prenyl protein-specific protease. *J. Biol. Chem.* 274: 8379-8382.
2. Bergo, M.O., Ambroziak, P., Gregory, C., George, A., Otto, J.C., Kim, E., Nagase, H., Casey, P.J., Balmain, A., Young, S.G. 2002. Absence of the CAAX endoprotease RCE1: effects on cell growth and transformation. *Mol. Cell. Biol.* 22: 171-181.
3. Aiyagari, A.L., Taylor, B.R., Aurora, V., Young, S.G., Shannon, K.M. 2003. Hematologic effects of inactivating the Ras processing enzyme RCE1. *Blood* 101: 2250-2252.
4. Cadinanos, J., Schmidt, W.K., Fueyo, A., Varela, I., Lopez-Otin, C., Freije, J.M. 2003. Identification, functional expression and enzymic analysis of two distinct CAAX proteases from *Caenorhabditis elegans*. *Biochem J.* 370: 1047-1054.
5. SWISS-PROT/TrEMBL (Q9Y256). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: RCE1 (human) mapping to 11q13.2.

SOURCE

RCE1 (N-20) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of RCE1 of human origin.

PRODUCT

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

APPLICATIONS

RCE1 (N-20) is recommended for detection of RCE1 of human origin by 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).

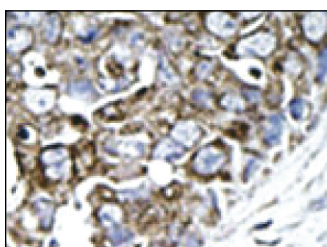
Suitable for use as control antibody for RCE1 siRNA (h): sc-106496, RCE1 shRNA Plasmid (h): sc-106496-SH and RCE1 shRNA (h) Lentiviral Particles: sc-106496-V.

Molecular Weight of RCE1: 36 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) 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. 2) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



RCE1 (N-20):sc-130250. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

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.