

reticulocalbin-1 (N-17): sc-109422

BACKGROUND

RCN proteins are highly conserved and, depending on their phosphorylation status, either stimulate or inhibit calcineurin, a Ca^{2+} -dependent protein phosphatase that couples Ca^{2+} signals to cellular responses. Reticulocalbin-1, also known as RCN1 or proliferation-inducing gene 20, is a 331 amino acid ubiquitously expressed protein that belongs to the CREC family. RCN1 contains a leader peptide, six EF-hand calcium-binding motifs, and a C-terminal HDEL sequence, which serves as an endoplasmic reticulum retention signal. RCN1 may regulate calcium-dependent activities in the endoplasmic reticulum lumen or post-ER compartment. The human RCN1 protein is 95% identical to the mouse Rcn protein. The RCN1 gene is conserved in chimpanzee, mouse, rat, chicken and zebrafish, and maps to human chromosome 11p13.

REFERENCES

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- Kent, J., et al. 1997. The reticulocalbin gene maps to the WAGR region in human and to the Small eye Harwell deletion in mouse. *Genomics* 42: 260-267.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602735. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
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CHROMOSOMAL LOCATION

Genetic locus: RCN1 (human) mapping to 11p13; Rcn1 (mouse) mapping to 2 E3.

SOURCE

reticulocalbin-1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of reticulocalbin-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109422 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

reticulocalbin-1 (N-17) is recommended for detection of reticulocalbin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with family member reticulocalbin-3.

reticulocalbin-1 (N-17) is also recommended for detection of reticulocalbin-1 in additional species, including porcine.

Suitable for use as control antibody for reticulocalbin-1 siRNA (h): sc-96490, reticulocalbin-1 siRNA (m): sc-152814, reticulocalbin-1 shRNA Plasmid (h): sc-96490-SH, reticulocalbin-1 shRNA Plasmid (m): sc-152814-SH, reticulocalbin-1 shRNA (h) Lentiviral Particles: sc-96490-V and reticulocalbin-1 shRNA (m) Lentiviral Particles: sc-152814-V.

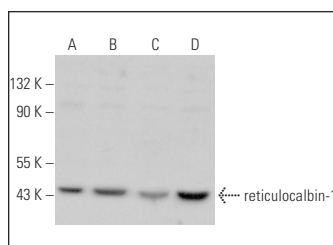
Molecular Weight of reticulocalbin-1: 39 kDa.

Positive Controls: A-375 cell lysate: sc-3811, U-87 MG cell lysate: sc-2411 or HeLa whole cell lysate: sc-2200.

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.

DATA



reticulocalbin-1 (N-17): sc-109422. Western blot analysis of reticulocalbin-1 expression in A-375 (A), HEK293 (B), HeLa (C) and U-87 MG (D) whole cell lysates.

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.