

RAMP2 (N-20): sc-8852

BACKGROUND

Receptor activity-modifying proteins (RAMPs) are transmembrane accessory proteins that influence the pharmacological profiles of the calcitonin receptor-like receptors (CRLR). RAMPs associate with CRLR in the endoplasmic reticulum and facilitate the glycosylation and transport of CRLR to the cell surface, where the mature protein then operates as a receptor for two structurally related vasodilatory peptides, calcitonin-gene-related peptide (CGRP) or adrenomedullin (ADM). RAMP-1 associating with CRLR confers a CGRP receptor, while RAMP-2 and RAMP-3 preferentially induce a responsiveness to ADM. RAMP proteins, including RAMP-1, RAMP-2 and RAMP-3, are structurally similar as they are type I receptors, which have a single extracellular N-terminus and a cytoplasmic C-terminus, and they share approximately 55% sequence similarity. RAMP-1 expression is highest in the uterus, brain and gastrointestinal tract, whereas RAMP-2 and RAMP-3 are highest in lung, breast and fetal tissues

REFERENCES

1. McLatchie, L.M., et al. 1998. RAMPs regulate the transport and ligand specificity of the calcitonin-receptor-like receptor. *Nature* 393: 333-339.
2. Sams, A., et al. 1998. Expression of calcitonin receptor-like receptor and receptor-activity-modifying proteins in human cranial arteries. *Neurosci. Lett.* 258: 41-44.
3. Fraser, N.J., et al. 1999. The amino terminus of receptor activity modifying proteins is a critical determinant of glycosylation state and ligand binding of calcitonin receptor-like receptor. *Mol. Pharmacol.* 55: 1054-1059.
4. Foord, S.M., et al. 1999. RAMPs: accessory proteins for seven transmembrane domain receptors. *Trends Pharmacol. Sci.* 20: 184-187.
5. Buhlmann, N., et al. 1999. A receptor activity modifying protein RAMP2-dependent adrenomedullin receptor is a calcitonin gene-related peptide receptor when coexpressed with human RAMP1. *Endocrinology* 140: 2883-2890.

CHROMOSOMAL LOCATION

Genetic locus: RAMP2 (human) mapping to 17q21.31; Ramp2 (mouse) mapping to 11 D.

SOURCE

RAMP2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of RAMP2 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-8852 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

RAMP2 (N-20) is recommended for detection of RAMP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 RAMP2 siRNA (h): sc-36378, RAMP2 siRNA (m): sc-36379, RAMP2 shRNA Plasmid (h): sc-36378-SH, RAMP2 shRNA Plasmid (m): sc-36379-SH, RAMP2 shRNA (h) Lentiviral Particles: sc-36378-V and RAMP2 shRNA (m) Lentiviral Particles: sc-36379-V.

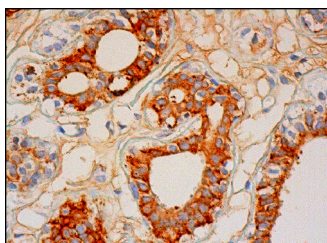
Molecular Weight of RAMP2: 20 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



RAMP2 (N-20): sc-8852. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic staining of glandular cells and myoepithelial cells.

RESEARCH USE

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

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Try **RAMP2 (B-5): sc-365240**, our highly recommended monoclonal alternative to RAMP2 (N-20).