

## RAMP2 (C-21): sc-8853

### 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). RAMP1 associating with CRLR confers a CGRP receptor, while RAMP2 and RAMP3 preferentially induce a responsiveness to ADM. RAMP proteins, including RAMP1, RAMP2 and RAMP3, 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. RAMP1 expression is highest in the uterus, brain and gastrointestinal tract, whereas RAMP2 and RAMP3 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. Kamitani, S., et al. 1999. The RAMP2/CRLR complex is a functional adrenomedullin receptor in human endothelial and vascular smooth muscle cells. *FEBS Lett.* 448: 111-114.
6. 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 (C-21) is available as either goat (sc-8853) or rabbit (sc-8853-R) polyclonal affinity purified antibody raised against a peptide mapping near the C-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-8853 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

RAMP2 (C-21) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

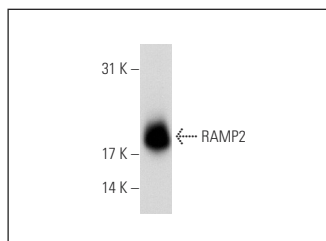
RAMP2 (C-21) is also recommended for detection of RAMP2 in additional species, including equine, canine, bovine and porcine.

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.

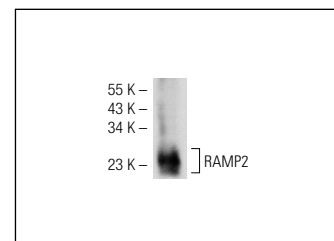
Molecular Weight of RAMP2: 20 kDa.

Positive Controls: A549 cell lysate: sc-2413, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

### DATA



RAMP2 (C-21)-R: sc-8853-R. Western blot analysis of RAMP2 expression in mouse brain tissue extract.



RAMP2 (C-21)-R: sc-8853-R. Western blot analysis of RAMP2 expression in rat brain tissue extract.

### SELECT PRODUCT CITATIONS

1. Bona, S., et al. 2012. Effect of antioxidant treatment on fibrogenesis in rats with carbon tetrachloride-induced cirrhosis. *ISRN Gastroenterol.* 2012: 762920.

### 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.



Try **RAMP2 (B-5): sc-365240**, our highly recommended monoclonal alternative to RAMP2 (C-21).