

RAMP2 (H-139): sc-11380

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.

CHROMOSOMAL LOCATION

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

SOURCE

RAMP2 (H-139) is a rabbit polyclonal antibody raised against amino acids 28-166 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.

APPLICATIONS

RAMP2 (H-139) 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), 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) 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, A549 cell lysate: sc-2413 or rat brain extract: sc-2392.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

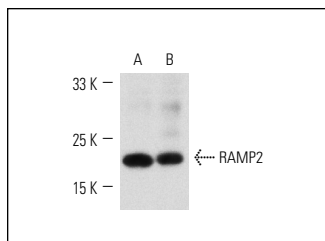
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

RESEARCH USE

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

DATA



RAMP2 (H-139): sc-11380. Western blot analysis of RAMP2 expression in rat (A) and mouse (B) brain tissue extracts.

SELECT PRODUCT CITATIONS

- Wang, X., et al. 2003. Upregulation of ligand, receptor system, and amidating activity of adrenomedullin in left ventricular hypertrophy of severely hypertensive rats: effects of angiotensin-converting enzyme inhibitors and diuretic. *J. Hypertens.* 21: 1171-1181.
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- Bell, D., et al. 2008. Influence of atenolol and nifedipine on nitric-oxide deficient cardiomyocyte hypertrophy and expression of the cardio-endocrine peptide intermedin and its receptor components. *Cell. Physiol. Biochem.* 21: 203-214.
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- Pan, C.S., et al. 2010. Adrenomedullin ameliorates the development of atherosclerosis in apoE^{-/-} mice. *Peptides* 31: 1150-1158.
- Hipolito, U.V., et al. 2011. Chronic ethanol consumption reduces adrenomedullin-induced relaxation in the isolated rat aorta. *Alcohol* 45: 805-814.
- Rocha, J.T., et al. 2012. Ethanol consumption alters the expression and reactivity of adrenomedullin in the rat mesenteric arterial bed. *Alcohol* 47: 9-17.



Try **RAMP2 (B-5): sc-365240**, our highly recommended monoclonal alternative to RAMP2 (H-139).