SANTA CRUZ BIOTECHNOLOGY, INC.

CRLR (V-20): sc-18007

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adrenomedullin (ADM) is a hypotensive peptide that belongs to a peptide superfamily which includes the Calcitonin gene-related peptide (CGRP), a potent vasodilator, and Amylin. Three distinct receptors have the ability to bind ADM and are designated ADM receptor (also designated L1), RDC-1 and the Calcitonin receptor-like receptor (CRLR). CRLR associates with receptor activity-modifying proteins (RAMPs), which determine the specificity of CRLR binding. Co-expression with RAMP1 results in CRLR binding to CGRP, whereas association with RAMP2 or RAMP3 results in ADM binding. These RAMP proteins mediate the level of glycosylation of CRLR, which in turn, determines the specificity of the receptors. CRLR is expressed in heart and blood vessels, which suggests its involvement in vasodilation, smooth muscle relaxation and angiogenesis. RDC-1 is also expressed in heart as well as lung and primarily binds CGRP.

CHROMOSOMAL LOCATION

Genetic locus: CALCRL (human) mapping to 2q32.1; Calcrl (mouse) mapping to 2 D.

SOURCE

CRLR (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CRLR 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-18007 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRLR (V-20) is recommended for detection of CRLR 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).

CRLR (V-20) is also recommended for detection of CRLR in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CRLR siRNA (h): sc-43705, CRLR siRNA (m): sc-44817, CRLR shRNA Plasmid (h): sc-43705-SH, CRLR shRNA Plasmid (m): sc-44817-SH, CRLR shRNA (h) Lentiviral Particles: sc-43705-V and CRLR shRNA (m) Lentiviral Particles: sc-44817-V.

Molecular Weight of CRLR: 60 kDa.

Positive Controls: mouse heart extract: sc-2254 or SK-N-MC cell lysate: sc-2237.

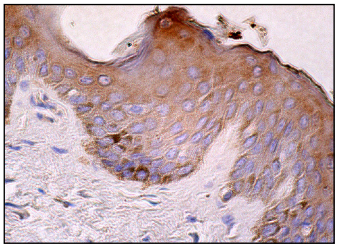
RESEARCH USE

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

STORAGE

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

DATA



CRLR (V-20): sc-18007. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

SELECT PRODUCT CITATIONS

1. Cueille, C., et al. 2005. Post-transcriptional regulation of CRLR expression during hypoxia. Biochem. Biophys. Res. Commun. 326: 23-29.
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3. Bell, D., et al. 2007. Differential effects of an anti-oxidant intervention on cardiomyocyte expression of adrenomedullin and intermedin and their receptor components in chronic nitric oxide deficiency. Cell. Physiol. Biochem. 20: 269-282.
4. 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.
5. Zeng, Q., et al. 2009. Upregulated expression of intermedin and its receptor in the myocardium and aorta in spontaneously hypertensive rats. Peptides 30: 391-399.
6. Kroeger, I., et al. 2009. The neuropeptide calcitonin gene-related peptide (CGRP) prevents inflammatory liver injury in mice. J. Hepatol. 51: 342-353.
7. Pan, C.S., et al. 2010. Adrenomedullin ameliorates the development of atherosclerosis in apoE$^{-/-}$ mice. Peptides 31: 1150-1158.
8. Hipólito, U.V., et al. 2011. Chronic ethanol consumption reduces adrenomedullin-induced relaxation in the isolated rat aorta. Alcohol 45: 805-814.
9. Harada, K., et al. 2011. Sustained-release adrenomedullin ointment accelerates wound healing of pressure ulcers. Regul. Pept. 168: 21-26.
10. Rocha, J.T., et al. 2012. Ethanol consumption alters the expression and reactivity of adrenomedullin in the rat mesenteric arterial bed. Alcohol Alcohol. 47: 9-17.