SANTA CRUZ BIOTECHNOLOGY, INC.

CRLR (H-42): sc-30028

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 three results in ADM binding. These RAMP proteins mediate the level of glycosylation of CRLR, which in turn, determines the receptors' specificity. 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.

REFERENCES

1. Autelitano, D.J. 1998. Cardiac expression of genes encoding putative adrenomedullin/calcitonin gene-related peptide receptors. Biochem. Biophys. Res. Commun. 250: 689-693.
2. Autelitano, D.J., et al. 1999. Co-expression of prepro-adrenomedullin with a putative adrenomedullin receptor gene in vascular smooth muscle. Clin. Sci. 96: 493-498.

CHROMOSOMAL LOCATION

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

SOURCE

CRLR (H-42) is a rabbit polyclonal antibody raised against amino acids 23-64 mapping within an N-terminal extracellular domain 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.

APPLICATIONS

CRLR (H-42) 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), 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 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.

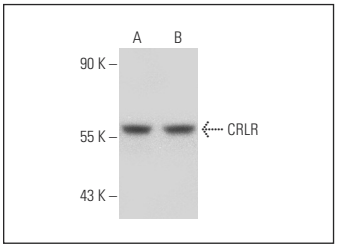
Molecular Weight of CRLR: 60 kDa.

Positive Controls: A549 cell lysate: sc-2413, mouse heart extract: sc-2254 or TE671 cell lysate: sc-2416.

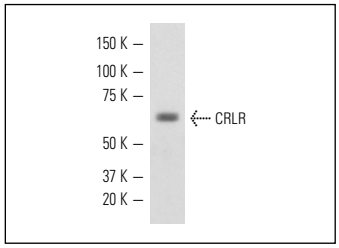
STORAGE

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

DATA



CRLR (H-42): sc-30028. Western blot analysis of CRLR expression in TE671 (**A**) and A549 (**B**) whole cell lysates.



CRLR (H-42): sc-30028. Western blot analysis of CRLR expression in mouse heart tissue extract.

SELECT PRODUCT CITATIONS

1. Guidolin, D., et al. 2008. Adrenomedullin stimulates angiogenic response in cultured human vascular endothelial cells: involvement of the vascular endothelial growth factor receptor 2. Peptides 29: 2013-2023.
2. Granholm, S., et al. 2008. Expression of the calcitonin receptor, calcitonin receptor-like receptor, and receptor activity modifying proteins during osteoclast differentiation. J. Cell. Biochem. 104: 920-933.
3. Czibik, G., et al. 2009. *In vivo* remote delivery of DNA encoding for hypoxia-inducible factor 1 α reduces myocardial infarct size. Clin. Transl. Sci. 2: 33-40.
4. Ramachandran, V., et al. 2009. The ADMR receptor mediates the effects of adrenomedullin on pancreatic cancer cells and on cells of the tumor microenvironment. PLoS ONE 4: e7502.
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6. Lim, Y.Y., et al. 2012. A comparison of neuropeptide expression in skin with allergic contact dermatitis in human and mouse. Int. J. Dermatol. 51: 939-946.
7. Csati, A., et al. 2012. Calcitonin gene-related peptide and its receptor components in the human sphenopalatine ganglion-interaction with the sensory system. Brain Res. 1435: 29-39.
8. Guo, X., et al. 2012. Intermedin is overexpressed in hepatocellular carcinoma and regulates cell proliferation and survival. Cancer Sci. 103: 1474-1480.
9. Yan, H. and Yu, L.C. 2013. Influences of calcitonin gene-related peptide on μ opioid receptors in nucleus accumbens neurons of rats. Neuropeptides 47: 125-131.

RESEARCH USE

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