SANTA CRUZ BIOTECHNOLOGY, INC.

bradykinin B1 R (H-90): sc-25484

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Kinins are important biologically active peptides that mediate cardiovascular homeostasis, inflammation and nociception. Bradykinin, the major effector peptide of the kallikrein-kinin system, is regulated by angiotensin-converting enzyme (ACE), which degrades the peptide. Bradykinin normally exerts its effects through the activation of two seven transmembrane G protein coupled receptors, named B1 and B2. The B2 receptor is constitutively expressed and preferentially binds full length bradykinin. Deletion of the B2 receptor leads to salt-sensitive hypertension and altered nociception in mice. The B1 receptor binds to derivatives of bradykinin and kallidin, which are produced by carboxypeptidase action to generate the products des-Arg9-bradykinin and des-Arg10-kallidin, respectively. The expression of the B1 receptor is inducible by inflammatory mediators, such as bacterial lipopolysaccharide (LPS) and cytokines. The B1 and B2 receptors represent potential therapeutic targets for treatment of inflammatory disorders and cardiovascular diseases.

REFERENCES

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2. Borkowski, J.A., et al. 1995. Targeted disruption of a B2 bradykinin receptor gene in mice eliminates bradykinin action in smooth muscle and neurons. J. Biol. Chem. 270: 13706-13710.
3. Rupniak, N.M., et al. 1997. Effects of the bradykinin B1 receptor antagonist des-Arg9[Leu8]bradykinin and genetic disruption of the B2 receptor on nociception in rats and mice. Pain 71: 89-97.
4. Ni, A., et al. 1998. Transcription factor nuclear factor κB regulates the inducible expression of the human B1 receptor gene in inflammation. J. Biol. Chem. 273: 2784-2791.
5. Schanstra, J.P., et al. 1999. Renal bradykinin receptors: localisation, transduction pathways and molecular basis for a possible pathological role (review). Int. J. Mol. Med. 3: 185-191.
6. Pesquero, J.B., et al. 2000. Hypoalgesia and altered inflammatory responses in mice lacking kinin B1 receptors. Proc. Natl. Acad. Sci. USA 97: 8140-8145.
7. Reyes-Cruz, G., et al. 2000. Regulation of the human bradykinin B2 receptor expressed in SF21 insect cells: a possible role for tyrosine kinases. J. Cell Biochem. 76: 658-673.

CHROMOSOMAL LOCATION

Genetic locus: BDKRB1 (human) mapping to 14q32.2; Bdkrb1 (mouse) mapping to 12 F1.

SOURCE

bradykinin B1 R (H-90) is a rabbit polyclonal antibody raised against amino acids 216-305 of bradykinin B1 R 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

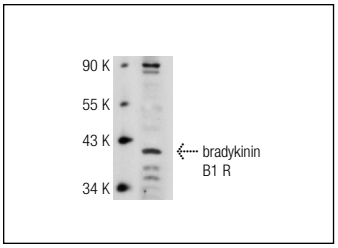
bradykinin B1 R (H-90) is recommended for detection of bradykinin B1 receptor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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 bradykinin B1 R siRNA (h): sc-39878, bradykinin B1 R siRNA (m): sc-39879, bradykinin B1 R shRNA Plasmid (h): sc-39878-SH, bradykinin B1 R shRNA Plasmid (m): sc-39879-SH, bradykinin B1 R shRNA (h) Lentiviral Particles: sc-39878-V and bradykinin B1 R shRNA (m) Lentiviral Particles: sc-39879-V.

Molecular Weight of bradykinin B1 receptor: 35 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

DATA



bradykinin B1 R (H-90): sc-25484. Western blot analysis of bradykinin B1 R expression in KNRK whole cell lysate.

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.

PROTOCOLS

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