

bradykinin B2 R (20): sc-136216

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.

CHROMOSOMAL LOCATION

Genetic locus: BDKRB2 (human) mapping to 14q32.2; Bdkrb2 (mouse) mapping to 12 E.

SOURCE

bradykinin B2 R (20) is a mouse monoclonal antibody raised against a recombinant protein mapping to amino acids 350-364 of bradykinin B2 R of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136216 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

bradykinin B2 R (20) is recommended for detection of bradykinin B2 R 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

bradykinin B2 R (20) is also recommended for detection of bradykinin B2 R in additional species, including canine.

Suitable for use as control antibody for bradykinin B2 R siRNA (h): sc-29822, bradykinin B2 R siRNA (m): sc-29823, bradykinin B2 R shRNA Plasmid (h): sc-29822-SH, bradykinin B2 R shRNA Plasmid (m): sc-29823-SH, bradykinin B2 R shRNA (h) Lentiviral Particles: sc-29822-V and bradykinin B2 R shRNA (m) Lentiviral Particles: sc-29823-V.

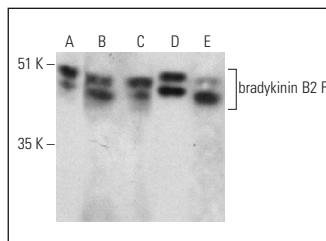
Molecular Weight of bradykinin B2 R: 44 kDa.

Molecular Weight of glycosylated bradykinin B2 R: 69 kDa.

STORAGE

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

DATA



bradykinin B2 R (20): sc-136216. Western blot analysis of bradykinin B2 R expression in SH-SY5Y (A), JAR (B), WI-38 (C), NIH/3T3 (D) and MH-S (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Catalioto, R.M., et al. 2013. Characterization of a novel proinflammatory effect mediated by BK and the kinin B₂ receptor in human preadipocytes. *Biochem. Pharmacol.* 86: 508-520.
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- Li, Y., et al. 2018. Enhancement of bradykinin-induced relaxation by focal brain ischemia in the rat middle cerebral artery: receptor expression upregulation and activation of multiple pathways. *PLoS ONE* 13: e0198553.
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- Khaddaj Mallat, R., et al. 2019. Pharmacological targeting of KCa channels to improve endothelial function in the spontaneously hypertensive rat. *Int. J. Mol. Sci.* 20: 3481.
- Gubern, C., et al. 2020. Evaluation of long-term rt-PA effects on bEnd.3 endothelial cells under ischemic conditions; changes in ZO-1 expression and glycosylation of the bradykinin B2 receptor. *Thromb. Res.* 187: 1-8.
- Yin, H., et al. 2021. Transcriptomic analysis exploring the molecular mechanisms of Hanchuan Zupa granules in alleviating asthma in rat. *Evid. Based Complement. Alternat. Med.* 2021: 5584099.
- Alves, S.A.S., et al. 2021. Surface megalin expression is a target to the inhibitory effect of bradykinin on the renal albumin endocytosis. *Peptides* 146: 170646.

RESEARCH USE

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