

# bradykinin B1 R (A-16): sc-15045

## 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

1. Trifilieff, A., et al. 1993. Kinins and respiratory tract diseases. *Eur. Respir. J.* 6: 576-587.
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.

## CHROMOSOMAL LOCATION

Genetic locus: Bdkrb1 (mouse) mapping to 12 E.

## SOURCE

bradykinin B1 R (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of bradykinin B1 R of mouse 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-15045 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

bradykinin B1 R (A-16) is recommended for detection of bradykinin B1 receptor of mouse and, to a lesser extent, rat 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 (m): sc-39879, bradykinin B1 R shRNA Plasmid (m): sc-39879-SH and bradykinin B1 R shRNA (m) Lentiviral Particles: sc-39879-V.

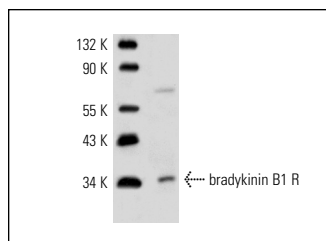
Molecular Weight of bradykinin B1 R: 35 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



bradykinin B1 R (A-16): sc-15045. Western blot analysis of bradykinin B1 receptor expression in KNRK whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Rashid, M.H., et al. 2004. Switching of bradykinin-mediated nociception following partial sciatic nerve injury in mice. *J. Pharmacol. Exp. Ther.* 308: 1158-1164.
2. Bulut, O.P., et al. 2009. Ontogeny of bradykinin B1 receptors in the mouse kidney. *Pediatr. Res.* 66: 519-523.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **bradykinin B1 R (3A2): sc-293196**, our highly recommended monoclonal alternative to bradykinin B1 R (A-16).