

# bradykinin B1 R (M-19): sc-15048

## 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: BDKRB1 (human) mapping to 14q32.2; Bdkrb1 (mouse) mapping to 12 E.

## SOURCE

bradykinin B1 R (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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-15048 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

bradykinin B1 R (M-19) is recommended for detection of bradykinin B1 receptor of mouse, rat and, to a lesser extent, 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-9878, 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 R: 35 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214 or A-10 cell lysate: sc-3806.

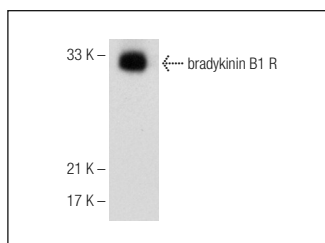
## STORAGE

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.

## DATA



bradykinin B1 R (M-19): sc-15048. Western blot analysis of bradykinin B1 R expression in A-10 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Hu, H.Z., et al. 2004. Action of bradykinin in the submucosal plexus of guinea pig small intestine. *J. Pharmacol. Exp. Ther.* 309: 320-327.
- Nagaoka, M.R., et al. 2006. Is the expression of kinin B1 receptor related to intrahepatic vascular response? *Biochim. Biophys. Acta* 1760: 1831-1836.
- Elmarakby, A.A., et al. 2007. Synergistic actions of enalapril and tempol during chronic angiotensin II-induced hypertension. *Vascul. Pharmacol.* 46: 144-151.
- Morand-Contant, M., et al. 2010. Kinin B1 receptor upregulation by angiotensin II and endothelin-1 in rat vascular smooth muscle cells: receptors and mechanisms. *Am. J. Physiol. Heart Circ. Physiol.* 299: H1625-H1632.
- Cosme-Cruz, R., et al. 2011. H2B homology region of major immediate-early protein 1 is essential for murine cytomegalovirus to disrupt nuclear domain 10, but is not important for viral replication in cell culture. *J. Gen. Virol.* 92: 2006-2019.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **bradykinin B1 R (3A2): sc-293196**, our highly recommended monoclonal alternative to bradykinin B1 R (M-19).