

# bradykinin B1 R (V-17): sc-15043

## 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. Trifileff, 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.
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  $\kappa$ B regulates the inducible expression of the human B1 receptor gene in inflammation. *J. Biol. Chem.* 273: 2784-2791.
5. Schanstra, 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.

## CHROMOSOMAL LOCATION

Genetic locus: BDKRB1 (human) mapping to 14q32.2

## SOURCE

bradykinin B1 R (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of bradykinin B1 R of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15043 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

bradykinin B1 R (V-17) is recommended for detection of bradykinin B1 R of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

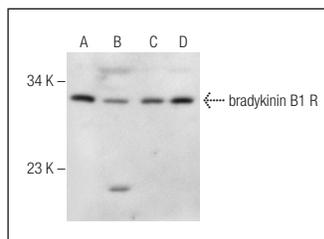
bradykinin B1 R (V-17) is also recommended for detection of bradykinin B1 receptor in additional species, including equine and bovine.

Suitable for use as control antibody for bradykinin B1 R siRNA (h): sc-39878, bradykinin B1 R shRNA Plasmid (h): sc-39878-SH and bradykinin B1 R shRNA (h) Lentiviral Particles: sc-39878-V.

Molecular Weight of bradykinin B1 R: 35 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, MIA PaCa-2 cell lysate: sc-2285 or K-562 whole cell lysate: sc-2203.

## DATA



bradykinin B1 R (V-17): sc-15043. Western blot analysis of bradykinin B1 R expression in HEK293 (A), Caki-1 (B), K-562 (C) and MIA PaCa-2 (D) whole cell lysates.

## 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 (V-17).