

bradykinin (4A1): sc-293304

BACKGROUND

Bradykinin (also known as Kinin-9 or Kallidin) is an endogenous vasodepressor hormone. Bradykinin is one of the most important peptides in regulating vascular tone, water, and ionic balance in the body, and, as such, plays a key role in controlling blood pressure. Bradykinin acts on small cell lung cancers in a paracrine manner by inhibiting the growth of mammary stromal cells. Bradykinin reduces blood pressure by dilating blood vessels and inducing intracellular calcium mobilization. In bronchial smooth muscles, and also in the intestines and the uterus, bradykinin leads to muscle contraction. Bradykinin is also one of the most potent pain inducing substances known.

REFERENCES

1. Woll, P.J., et al. 1989. Neuropeptides as growth regulators. *Br. Med. Bull.* 45: 492-505.
2. Bevis, C.L., et al. 1990. Peptides from frog skin. *Annu. Rev. Biochem.* 59: 395-414.
3. de Castiglione, R., et al. 1991. Non-mammalian peptides: structure determination synthesis, and biological activity. *Chimicaoggi* 4: 9-15.
4. Rozengurt, E. 1991. Neuropeptides as cellular growth factors: role of multiple signaling pathways. *Eur. J. Clin. Invest.* 21: 123-134.
5. Schüller, H.M. 1991. Receptor-mediated mitogenic signals and lung cancer. *Cancer Cells* 3: 496-503.
6. Gonzalez, C.B., et al. 1999. Vasopressin and bradykinin receptors in the kidney: implications for tubular function. *Biol. Res.* 32: 63-76.
7. Morinelli, T.A., et al. 2001. A metabolic fragment of bradykinin, Arg-Pro-Pro-Gly-Phe, protects against the deleterious effects of lipopolysaccharide in rats. *J. Pharmacol. Exp. Ther.* 296: 71-76.

CHROMOSOMAL LOCATION

Genetic locus: KNG1 (human) mapping to 3q27.3.

SOURCE

bradykinin (4A1) is a mouse monoclonal antibody raised against amino acids 322-427 of bradykinin of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

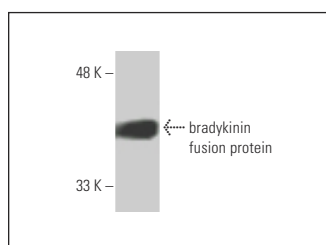
APPLICATIONS

bradykinin (4A1) is recommended for detection of bradykinin of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



bradykinin (4A1): sc-293304. Western blot analysis of human recombinant bradykinin fusion protein.

SELECT PRODUCT CITATIONS

1. Seo, M.H., et al. 2024. Serpin1 associated with α-synuclein increase in colonic smooth muscles of MPTP-induced Parkinson's disease mice. *Sci. Rep.* 14: 1140.

STORAGE

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

PROTOCOLS

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