

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

Bradykinin

Product overview

Name Bradykinin
Cat No HB3101
Biological description Bradykinin is an endogenous bradykinin receptor agonist with selectivity for B₂ over B₁ receptors.

Bradykinin interacts with its GPCRs (G-protein-coupled receptors) to induce changes in intracellular calcium via a variety of mechanisms (PLC, prostaglandins, protein kinases and PLA₂). Addition of bradykinin to NG 108-15 neural cells causes a transient hyperpolarization followed by prolonged cell depolarization.

Recently Bradykinin has also been shown to neuron-generating division of neural progenitor cells through ERK activation

The peptide is involved in a variety of physiological and pathophysiological activities. It is a pro-inflammatory mediator and a potent vasodilator which exerts its vasodilatory actions by inducing endothelial release of NO (nitric oxide), prostacyclin and EDHF.

It is involved in cardiovascular homeostasis, inflammation and nociception. It also shows anti-proliferative and anti-fibrogenic effects.

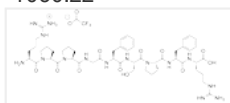
Alternative names BK
Purity >95%
Description Endogenous bradykinin receptor agonist

Solubility & Handling

Storage instructions -20 °C
Solubility overview Soluble in water (1 mg/ml)
Important This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name RPPGFSPFR
Molecular Weight 1060.22
Chemical structure



Molecular Formula C₅₀H₇₃N₁₅O₁₁
CAS Number 58-82-2
PubChem identifier 439201
SMILES C1C[C@H](N(C1)C(=O)[C@@H]2CCCN2C(=O)[C@H](CCCN=C(N)N)C(=O)NCC(=O)N[C@@H](CC3=CC=CC=C3)C(=O)N[C@@H](CO)C(=O)N4CCC[C@H]4C(=O)N[C@@H](CC5=CC=CC=C5)C(=O)N[C@@H](CCCN=C(N)N)C(=O)O
InChiKey QXZGBUJJYSLZLT-FDISYFBSA-N
Appearance Lyophilized powder

References

Bradykinin receptors and their antagonists.

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Endothelial function and bradykinin in humans.

Horning et al (1997) Drugs 2

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Bradykinin promotes neuron-generating division of neural progenitor cells through ERK activation.

Pillat et al (2016) J Cell Sci. 129(18)

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The kinin system--bradykinin: biological effects and clinical implications. Multiple role of the kinin system--bradykinin.

Golias et al (2007) Hippokratia 11(3)

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