**Product overview**

**Name**  
Bradykinin

**Cat No**  
HB3101

**Short description**  
Endogenous bradykinin receptor agonist

**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%

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**Properties**

**Chemical name**  
RPPGFSPFR

**Molecular Weight**  
1060.22

**Chemical structure**

![Chemical structure of Bradykinin](image)

**Molecular Formula**  
C_{50}H_{73}N_{15}O_{11}

**CAS Number**  
58-82-2

**PubChem identifier**  
439201

**SMILES**

C1C[C@@H](N[C@H](C/N[C@@H]2CCCN2C(=O)N[C@H](CCCN=C(N)N)N)[C@@H](CC=C3=C=C=C3)C(=O)N[C@@H](CO)C(=O)N[C@@H](CCCN=C(N)N)C(=O)O)

**InChiKey**  
QXZGBUJYSLZLT-FDISYFBBSA-N

**Appearance**  
Lyophilized powder
Storing and Using Your Product

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.

References for Bradykinin

Bradykinin receptors and their antagonists.
PubMedID: 9650825

Endothelial function and bradykinin in humans.
PubMedID: 9429844

Bradykinin promotes neuron-generating division of neural progenitor cells through ERK activation.
PubMedID: 27528403

The kinin system--bradykinin: biological effects and clinical implications. Multiple role of the kinin system--bradykinin.
PubMedID: 19582206