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## DATASHEET

### Bradykinin

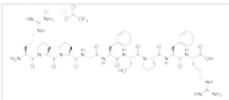
#### Product overview

<b>Name</b>	Bradykinin
<b>Cat No</b>	HB3101
<b>Biological description</b>	<p>Bradykinin is an endogenous bradykinin receptor agonist with selectivity for B<sub>2</sub> over B<sub>1</sub> receptors.</p> <p>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 PLA<sub>2</sub>). Addition of bradykinin to NG 108-15 neural cells causes a transient hyperpolarization followed by prolonged cell depolarization.</p> <p>Recently Bradykinin has also been shown to neuron-generating division of neural progenitor cells through ERK activation</p> <p>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.</p> <p>It is involved in cardiovascular homeostasis, inflammation and nociception. It also shows anti-proliferative and anti - fibrogenic effects.</p>
<b>Alternative names</b>	BK
<b>Purity</b>	>95%
<b>Description</b>	Endogenous bradykinin receptor agonist

#### Solubility & Handling

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

#### Chemical Data

<b>Chemical name</b>	RPPGFSPFR
<b>Molecular Weight</b>	1060.22
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>50</sub> H <sub>73</sub> N <sub>15</sub> O <sub>11</sub>
<b>CAS Number</b>	58-82-2
<b>PubChem identifier</b>	439201
<b>SMILES</b>	<chem>C1C[C@H](N(C1)C(=O)[C@@H]2CCCN2C(=O)[C@H](CCCN=C(N)N)N)C(=O)NCC(=O)N[C@@H](CC3=CC=CC=C3)C(=O)N[C@@H](CO)C(=O)N4CCCC[C@H]4C(=O)N[C@@H](CC5=CC=CC=C5)C(=O)N[C@@H](CCCN=C(N)N)C(=O)O</chem>
<b>InChiKey</b>	QXZGBUJJYSLZLT-FDISYFBBSA-N
<b>Appearance</b>	Lyophilized powder

#### References

### **Bradykinin receptors and their antagonists.**

Regoli et al (1998) Eur J Pharmacol. 348(1)

**PubMedID** [9650825](#)

### **Endothelial function and bradykinin in humans.**

Horning et al (1997) Drugs 2

**PubMedID** [9429844](#)

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

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

**PubMedID** [27528403](#)

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

Golias et al (2007) Hippokratia 11(3)

**PubMedID** [19582206](#)

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