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DATASHEET

Bradykinin

Product overview

Name	Bradykinin
Cat No	HB3101
Alternative names	BK
Purity	>95%
Description	Endogenous bradykinin receptor agonist

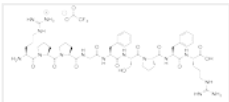
Biological Data

Biological description	<p>Bradykinin is an endogenous bradykinin receptor agonist with selectivity for B₂ over B₁ 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 PLA₂). 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>
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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	C ₅₀ H ₇₃ N ₁₅ O ₁₁
CAS Number	58-82-2
PubChem identifier	439201
SMILES	<chem>C1C[C@H](N(C1)C(=O)[C@@H]2CCCC2C(=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)N4CCC[C@H]4C(=O)N[C@@H](CC5=CC=CC=C5)C(=O)N[C@@H](CCCN=C(N)N)C(=O)O</chem>

InChiKey
Appearance

QXZGBUJJYSLZLT-FDISYFBBSA-N
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](#)
