



LKT Laboratories, Inc.

## Bradykinin (1-3)

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### Product Information

Product ID B6802

CAS No. 23815-91-0

Chemical Name

Synonym

Formula  $C_{16}H_{28}N_6O_4$

Formula Wt. 368.4

Melting Point

Purity  $\geq 95\%$

Solubility Soluble in water.

H-Arg-Pro-Pro-OH

**Bulk quantities available upon request**

Product ID	Size
B6802	5 mg
B6802	10 mg
B6802	25 mg

Store Temp  $-20^{\circ}C$

Ship Temp Ambient

**Description** Bradykinin is a peptide that exhibits natriuretic, antioxidative, vasodilatory, and pro-angiogenic activities. Bradykinin stimulates bradykinin receptors and increases PLC activity, decreasing ENaC open probability, inhibiting distal nephron Na<sup>+</sup> transport, and inducing natriuresis. In vitro, bradykinin decreases H<sub>2</sub>O<sub>2</sub>-induced senescence, increases activity of superoxide dismutase (SOD), and suppresses DNA damage, ROS production, and NADPH oxidase activity. Additionally, bradykinin increases expression of VEGF and promotes tube formation in prostate cancer cells.

**References** Mamenko M, Zaika O, Pochynyuk O. Direct regulation of ENaC by bradykinin in the distal nephron. Implications for renal sodium handling. *Curr Opin Nephrol Hypertens*. 2014 Mar;23(2):122-9. PMID: 24378775.

Yu HS, Wang SW, Chang AC, et al. Bradykinin promotes vascular endothelial growth factor expression and increases angiogenesis in human prostate cancer cells. *Biochem Pharmacol*. 2014 Jan 15;87(2):243-53. PMID: 24225154.

Dong R, Xu X, Li G, et al. Bradykinin inhibits oxidative stress-induced cardiomyocytes senescence via regulating redox state. *PLoS One*. 2013 Oct 25;8(10):e77034. PMID: 24204728.

Feher A, Cassuto J, Szabo A, et al. Increased tissue angiotensin-converting enzyme activity impairs bradykinin-induced dilation of coronary arterioles in obesity. *Circ J*. 2013;77(7):1867-76. PMID: 23603844.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.