

Lys-[Des-Arg9]Bradykinin

Cat. No.:	HY-103295
CAS No.:	71800-36-7
Molecular Formula:	C ₅₀ H ₇₃ N ₁₃ O ₁₁
Molecular Weight:	1032.2
Sequence:	Lys-Arg-Pro-Pro-Gly-Phe-Ser-Pro-Phe
Sequence Shortening:	KRPPGFSPF
Target:	Bradykinin Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Lys-[Des-Arg9]Bradykinin, a naturally occurring kinin, is a potent and highly selective bradykinin B1 receptor agonist with a K _i of 0.12 nM, 1.7 nM and 0.23 nM for human, mouse and rabbit B1 receptors, respectively. Lys-[Des-Arg9]Bradykinin has low inhibitory activity on B2 receptors ^{[1][2]} .
In Vitro	Lys-[Des-Arg9]Bradykinin is formed by the proteolytic cleavage of bradykinin, exerts its effects through bradykinin B1 receptor (B1R) ^[1] . Lys-[Des-Arg9]Bradykinin (Lda-BK; 10 μM) enhances the secretion of IL-12p70 and inhibits the secretion of IL-12p40 by mature hMo-DCs. Pretreatment with Lys-[Des-Arg9]Bradykinin treatment reduces the migration of mature hMo-DCs toward medium alone, suggesting that Lys-[Des-Arg9]Bradykinin may inhibit the chemokinesis of mature hMo-DCs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Lys-[Des-Arg9]Bradykinin (1 μg; intra-arterial injection; New Zealand White rabbits) treatment reduces peripheral vascular resistance in LPS-induced rabbits, but the effect is brief (T _{1/2} is 118-195 s) ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Rosalind Gulliver, et al. Lys-des[Arg9]-bradykinin alters migration and production of interleukin-12 in monocyte-derived dendritic cells. *Am J Respir Cell Mol Biol*. 2011 Sep;45(3):542-9.
- [2]. L M Fredrik Leeb-Lundberg, et al. International union of pharmacology. XLV. Classification of the kinin receptor family: from molecular mechanisms to pathophysiological consequences. *Pharmacol Rev*. 2005 Mar;57(1):27-77.
- [3]. G Drapeau, et al. Hypotensive effects of Lys-des-Arg9-bradykinin and metabolically protected agonists of B1 receptors for kinins. *J Pharmacol Exp Ther*. 1991 Dec;259(3):997-1003.

Caution: Product has not been fully validated for medical applications. For research use only.

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