

PRODUCT INFORMATION



Lys-(Des-Arg⁹)-Bradykinin (trifluoroacetate salt)

Item No. 29922

Formal Name:	1-9-kallidin, trifluoroacetate
Synonyms:	(Des-Arg ¹⁰)-Kallidin, (Des-Arg ¹⁰)-KD, KRPPGFSPF-OH, Lys-(Des-Arg ⁹)-BK, N ² -L-lysyl-9-de-L-arginine-Bradykinin
MF:	C ₅₀ H ₇₃ N ₁₃ O ₁₁ • XCF ₃ COOH
FW:	1,032.2
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years

H—Lys—Arg—Pro—Pro—Gly—Phe—Ser—Pro—Phe—OH

• XCF₃COOH

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lys-(Des-Arg⁹)-Bradykinin (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the Lys-(Des-Arg⁹)-bradykinin (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Lys-(Des-Arg⁹)-Bradykinin (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of Lys-(Des-Arg⁹)-bradykinin (trifluoroacetate salt) in ethanol is approximately 20 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Lys-(Des-Arg⁹)-bradykinin (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Lys-(Des-Arg⁹)-bradykinin (trifluoroacetate salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Lys-(Des-Arg⁹)-Bradykinin is a naturally occurring peptide agonist of the bradykinin B₁ receptor (K_i = 0.12 nM in HEK293 cells expressing the human receptor).^{1,2} It is selective for bradykinin B₁ over B₂ receptors (IC₅₀ = >30,000 nM in CHO cells expressing the human receptor).³ Lys-(Des-Arg⁹)-Bradykinin increases both mRNA and protein levels of the B₁ receptor in IMR-90 human lung fibroblasts in a concentration-dependent manner.⁴ It induces contraction of isolated rabbit aorta (pD₂ = 8.6).⁵ Lys-(Des-Arg⁹)-Bradykinin decreases blood pressure in LPS-treated rabbits in a dose-dependent manner.²

References

1. Bastian, S., Loillier, B., Paquet, J.L., *et al. Br. J. Pharmacol.* **122**(2), 393-399 (1997).
2. Drapeau, G., deBlois, D., and Marceau, F. *J. Pharmacol. Exp. Ther.* **259**(3), 997-1003 (1991).
3. Hess, J.F., Borkowski, J.A., Macneil, T., *et al. Mol. Pharmacol.* **45**(1), 1-8 (1994).
4. Schanstra, J.P., Bataillé, E., Marin Castaño, M.E., *et al. J. Clin. Invest.* **101**(10), 2080-2091 (1998).
5. Rhaleb, N.E., Drapeau, G., Dion, S., *et al. Br. J. Pharmacol.* **99**(3), 445-448 (1990).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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