PRODUCT INFORMATION

Lys-(Des-Arg^9, Leu^8)-Bradykinin (trifluoroacetate salt)

Item No. 35462

Formal Name: 9-L-leucine-1-9-kallidin, trifluoroacetate salt
Synonyms: [Des-Arg^{10},Leu^9]-Kallidin,
[Des-Arg^{10},Leu^9]-KD,
Lys[Leu^8]Des-Arg^9-BK,
Lys[Leu^8]Des-Arg^9-Bradykinin
MF: $C_{47}H_{75}N_{13}O_{11} \bullet XCF_3COOH$
FW: 998.2
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years

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

• XCF_3COOH

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

Laboratory Procedures

Lys-(Des-Arg^9, Leu^8)-Bradykinin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the Lys-(Des-Arg^9, Leu^8)-bradykinin (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Lys-(Des-Arg^9, Leu^8)-Bradykinin (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Lys-(Des-Arg^9, Leu^8)-bradykinin (trifluoroacetate salt) in these solvents is approximately 3 and 1 mg/ml, respectively.

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-Arg^9, Leu^8)-bradykinin (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of Lys-(Des-Arg^9, Leu^8)-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-Arg^9, Leu^8)-Bradykinin is a bradykinin B_1 receptor antagonist (K_i = 0.43 nM for the rabbit aorta receptor).[1] It is selective for the bradykinin B_1 over the B_2 receptor (K_i = >10 µM for the rabbit ileum receptor).[2] Lys-(Des-Arg^9, Leu^8)-Bradykinin inhibits contractions induced by the bradykinin B_1 receptor agonist Des-Arg^9-bradykinin (Item No. 31136) in isolated rabbit aortic rings (pA_2 = 8.54).[3] Intraperitoneal administration of Lys-(Des-Arg^9, Leu^8)-bradykinin (5 mg/kg per day for three days) reduces increases in paw edema in a rat model of arthritis induced by peptidoglycan-polysaccharide (PGPS).[4]

References

1. MacNeil, T., Bierilo, K.K., Menke, J.G., *et al.* Cloning and pharmacological characterization of a rabbit bradykinin B_1 receptor. *Biochimica et Biophysica Acta* **1264(2)**, 223-228 (1995).
2. Meini, S., Cucchi, P., Catalani, C., *et al.* Radioligand binding characterization of the bradykinin B_2 receptor in the rabbit and pig ileal smooth muscle. *Eur. J. Pharmacol.* **635(1-3)**, 34-39 (2010).
3. Drapeau, G., Audet, R., Levesque, L., *et al.* Development and *in vivo* evaluation of metabolically resistant antagonists of B_1 receptors for kinins. *J. Pharmacol. Exp. Ther.* **266(1)**, 192-199 (1993).
4. Blais, C., Jr., Couture, R., Drapeau, G., *et al.* Involvement of endogenous kinins in the pathogenesis of peptidoglycan-induced arthritis in the Lewis rat. *Arthritis Rheum.* **40(7)**, 1327-1333 (1997).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM