

PRODUCT INFORMATION



PAMP-12 (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) Item No. 36910

Formal Name: L-phenylalanyl-L-arginyl-L-lysyl-L-lysyl-L-tryptophyl-L-asparaginyl-L-lysyl-L-tryptophyl-L-alanyl-L-leucyl-L-seryl-L-argininamide, trifluoroacetate salt

Synonyms: PAMP (9-20), Proadrenomedullin N-terminal 12 Peptide

Peptide Sequence: FRKKWNKWALSR-NH₂

MF: C₇₇H₁₁₉N₂₅O₁₄ • XCF₃COOH

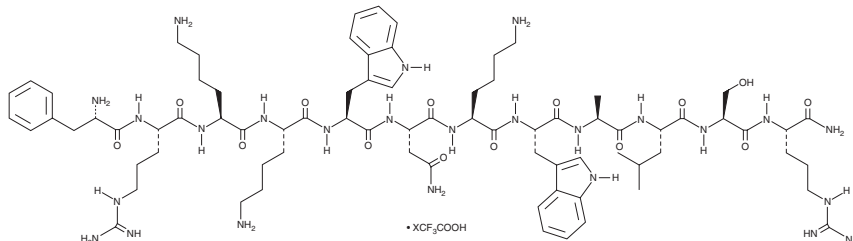
FW: 1,618.9

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

PAMP-12 (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the PAMP-12 (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. PAMP-12 (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PAMP-12 (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in these solvents is approximately 10 and 50 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 PAMP-12 (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of PAMP-12 (human, mouse, rat, porcine, bovine) (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

Proadrenomedullin N-terminal 12 peptide (PAMP-12) is an endogenous peptide fragment found in the adrenal medulla that corresponds to amino acids 9-20 of human PAMP-20 and is involved in hypotension.¹⁻³ It is an agonist of MAS-related G protein-coupled receptor family member X2 (MRGPRX2).² PAMP-12 inhibits forskolin-induced cAMP accumulation in CHO cells expressing human MRGPRX2 (EC₅₀ = 57.2 nM). It selectively induces calcium mobilization in CHO cells expressing MRGPRX2 (EC₅₀ = 41 nM) over those expressing MRGPRX1, MRGPRX3, or MRGPRX4 at 1 μM. PAMP-12 is an antagonist of nicotinic acetylcholine receptors (nAChRs) that inhibits carbachol-induced catecholamine release (IC₅₀ = 1.3 μM) and calcium and sodium influx (IC₅₀s = 0.39 and 0.87 μM, respectively), but not histamine-induced catecholamine release or calcium and sodium influx (IC₅₀s = >1 μM for all), in primary bovine adrenal chromaffin cells.³ It reduces mean arterial blood pressure in normotensive rats when administered at doses ranging from 10 to 50 nmol/kg.¹

References

1. Kuwasako, K., Kitamura, K., Ishiyama, Y., et al. *FEBS Lett.* **414**(1), 108-110 (1997).
2. Kamohara, M., Matsuo, A., Takasaki, J., et al. *Biochem. Biophys. Res. Commun.* **330**(4), 1146-1152 (2005).
3. Kobayashi, H., Yamamoto, R., Kitamura, K., et al. *Brain Res. Mol. Brain Res.* **87**(2), 175-183 (2001).

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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