

# PRODUCT INFORMATION



## BAM-22P (human, mouse, rat, bovine) (trifluoroacetate salt)

Item No. 36723

<b>Formal Name:</b>	L-tyrosylglycylglycyl-L-phenylalanyl-L-methionyl-L-arginyl-L-arginyl-L-valylglycyl-L-arginyl-L-prolyl-L- $\alpha$ -glutamyl-L-tryptophyl-L-tryptophyl-L-methionyl-L- $\alpha$ -aspartyl-L-tyrosyl-L-glutamyl-L-lysyl-L-arginyl-L-tyrosyl-glycine, trifluoroacetate salt	H—Tyr—Gly—Gly—Phe—Met—Arg—Arg—Val—Gly—Arg—Pro—Glu—Trp—Trp—Met—Asp—Tyr—Gln—Lys—Arg—Tyr—Gly—OH
<b>Synonyms:</b>	Bovine Adrenal Medullary Docosapeptide, YGGFMRRVGRPEWWMQKRYG	• XCF <sub>3</sub> COOH
<b>MF:</b>	C <sub>130</sub> H <sub>184</sub> N <sub>38</sub> O <sub>31</sub> S <sub>2</sub> • XCF <sub>3</sub> COOH	
<b>FW:</b>	2,839.2	
<b>Purity:</b>	≥98%	
<b>Supplied as:</b>	A solid	
<b>Storage:</b>	-20°C	
<b>Stability:</b>	≥4 years	

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

### Laboratory Procedures

BAM-22P (human, mouse, rat, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the BAM-22P (human, mouse, rat, bovine) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. BAM-22P (human, mouse, rat, bovine) (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BAM-22P (human, mouse, rat, bovine) (trifluoroacetate salt) in these solvents is approximately 10 mg/ml.

### Description

BAM-22P is an endogenous neuropeptide derived from proenkephalin A.<sup>1</sup> It is expressed primarily in the adrenal medulla and at lower concentrations throughout the brain. BAM-22P binds  $\mu$ -,  $\kappa$ -, and  $\delta$ -opioid receptors ( $K_i$ s = 0.9, 2.9, and 7.2 nM, respectively).<sup>2</sup> Intracerebroventricular administration of BAM-22P induces analgesia in a tail-flick assay in mice (ED<sub>50</sub> = 6.4 nM).<sup>1</sup> It decreases the frequency of tail flicking, as well as paw lifting and licking in a rat model of formalin-induced nocifensive behavior when administered intrathecally at a dose of 5 nM/animal.<sup>2</sup>

### References

- Höllt, V., Haarmann, I., Grimm, C., *et al.* Pro-enkephalin intermediates in bovine brain and adrenal medulla: Characterization of immunoreactive peptides related to BAM-22P and peptide F. *Life Sci.* **31(16-17)**, 1883-1886 (1982).
- Garzón, J., Sánchez-Blázquez, P., Höllt, V., *et al.* Endogenous opioid peptides: Comparative evaluation of their receptor affinities in the mouse brain. *Life Sci.* **33(Suppl 1)**, 291-294 (1983).
- Hong, Y., Dai, P., Jiang, J., *et al.* Dual effects of intrathecal BAM22 on nociceptive responses in acute and persistent pain—potential function of a novel receptor. *Br. J. Pharmacol.* **141(3)**, 423-430 (2004).

#### 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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