

## BAM-22P

<b>Cat. No.:</b>	HY-P1331
<b>CAS No.:</b>	76622-26-9
<b>Molecular Formula:</b>	C <sub>130</sub> H <sub>184</sub> N <sub>38</sub> O <sub>31</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	2839.22
<b>Sequence:</b>	Tyr-Gly-Gly-Phe-Met-Arg-Arg-Val-Gly-Arg-Pro-Glu-Trp-Trp-Met-Asp-Tyr-Gln-Lys-Arg-Tyr-Gly
<b>Sequence Shortening:</b>	YGGFMRRVGRPEWWMMDYQKRYG
<b>Target:</b>	Opioid Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	BAM-22P, a highly potent opioid peptide, is a potent opioid agonist.
<b>IC<sub>50</sub> &amp; Target</b>	Opioid receptor <sup>[1]</sup>
<b>In Vivo</b>	<p>Bovine adrenal medulla docosapeptide (BAM-22P) is a potent opioid agonist, derived from the proenkephalin A gene, which is present in the adrenal medulla. Plasma levels of BAM-22P are determined by a sensitive radioimmunoassay, and the specificity of the assay is confirmed using high-performance liquid chromatography. Plasma BAM-22P levels in cholestatic rats are significantly higher than those in control rats. This increase in plasma BAM-22P levels is completely prevented by adrenalectomy. Adrenal steady-state levels of proenkephalin mRNA, as determined by Northern blot hybridization analyses, are also increased significantly in cholestatic rats. These increases in proenkephalin mRNA levels are not paralleled by changes in adrenal BAM-22P peptide levels, which are similar in cholestatic rats and their respective controls. Similar levels of proenkephalin mRNA expression are observed in innervated and denervated adrenal glands from cholestatic rats, suggesting that the increase in adrenal proenkephalin mRNA levels in acute cholestasis is not due to splanchnic nerve activation. Thus acute cholestasis in the rat is associated with adrenal secretion and accumulation in plasma of the highly potent opioid peptide BAM-22P and an augmentation of adrenal proenkephalin mRNA expression. The increase in plasma BAM-22P levels may contribute substantially to the increase in total circulating opioid activity documented in cholestatic rats. Adrenal gland levels of BAM-22P are similar in BDR and sham-resected rats (BDR, 1.10±0.39 ng/g; sham, 0.93±0.16 ng/g; NS). BAM-22P levels in ANIT-treated and oil-gavaged controls are also similar (ANIT, 2.88±0.29 ng/g; control, 2.75±0.30 ng/g; NS). However, adrenal BAM-22P levels are lower in BDR and sham-resected rats than in ANIT-treated and oil-gavaged controls (P&lt;0.01). Acute cholestasis in the rat is associated with enhanced synthesis and secretion of the proenkephalin-derived opioid peptide BAM-22P from the adrenal gland<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

[1]. Swain MG, et al. Adrenal secretion of BAM-22P, a potent opioid peptide, is enhanced in rats with acute cholestasis. *Am J Physiol.* 1994 Feb;266(2 Pt 1):G201-5.

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

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