

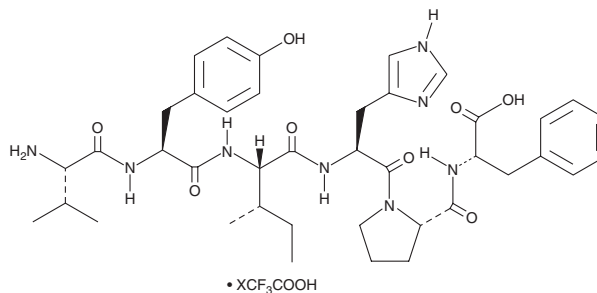
PRODUCT INFORMATION



Angiotensin II (3-8) (human, rat, mouse) (trifluoroacetate salt)

Item No. 24738

Formal Name: 5-L-isoleucine-3-8-angiotensin II, trifluoroacetate salt
Synonym: Angiotensin IV (human, rat, mouse)
MF: C₄₀H₅₄N₈O₈ • XCF₃COOH
FW: 774.9
Purity: ≥95%
Supplied as: A lyophilized powder
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Angiotensin II (3-8) (human, rat, mouse) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the angiotensin II (3-8) (human, rat, mouse) (trifluoroacetate salt) in water. The solubility of angiotensin II (3-8) (human, rat, mouse) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Angiotensin II (3-8) is an endogenous C-terminal fragment of the peptide vasoconstrictor angiotensin II (Item No. 17150).¹ It selectively binds to the angiotensin 2 (AT₂) over AT₁ receptors (IC₅₀s = 48.6 and >1,000 nM, respectively, in HEK293 cells expressing rat receptors). It also binds to AT₄ receptors in bovine aortic endothelial cell membranes (IC₅₀ = 1.6 nM).² Angiotensin II (3-8) induces a positive chronotropic effect in isolated rat right atria (EC₅₀ = 4.68 μM) and increases mean arterial pressure (MAP) *in vivo* in rats when administered intracerebroventricularly at a dose of 1 pmol.^{3,4} It also increases latency to withdrawal in a tail-flick test in rats when administered by microinjection into the ventrolateral periaqueductal gray (vlPAG).⁵

References

1. Bosnyak, S., Jones, E.S., Christopoulos, A., *et al.* Relative affinity of angiotensin peptides and novel ligands at AT₁ and AT₂ receptors. *Clin. Sci. (Lond)* **121**(7), 297-303 (2011).
2. Bernier, S.G., Bellemare, J.M., Escher, E., *et al.* Characterization of AT₄ receptor from bovine aortic endothelium with photosensitive analogues of angiotensin IV. *Biochemistry* **37**(12), 4280-4287 (1998).
3. Li, Q., Zhang, J., Pfaffendorf, M., *et al.* Direct positive chronotropic effects of angiotensin II and angiotensin III in pithed rats and in rat isolated atria. *Br. J. Pharmacol.* **118**(7), 1653-1658 (1996).
4. Wright, J.W., Jensen, L.L., Roberts, K.A., *et al.* Structure-function analyses of brain angiotensin control of pressor action in rats. *Am. J. Physiol.* **257**(6 Pt. 2), R1551-R1557 (1989).
5. Guethe, L.M., Pelegrini-da-Silva, A., Borelli, K.G., *et al.* Angiotensin (5-8) modulates nociception at the rat periaqueductal gray via the NO-sGC pathway and an endogenous opioid. *Neuroscience* **231**, 315-327 (2013).

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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