

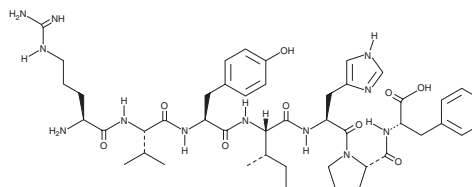
PRODUCT INFORMATION



Angiotensin III (human, mouse)

Item No. 21618

CAS Registry No.: 13602-53-4
Formal Name: 5-L-isoleucine-2-8-angiotensin II
MF: C₄₆H₆₆N₁₂O₉
FW: 931.1
Purity: ≥98%
Supplied as: A crystalline 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

Angiotensin III (Ang III) (human, mouse) is supplied as a crystalline solid. Aqueous solutions of Ang III (human, mouse) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Ang III (human, mouse) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ang III is a heptapeptide agonist at the angiotensin 1 (AT₁) and AT₂ receptors, with a 30-fold higher affinity for AT₂ compared with AT₁ in HEK293 cells.^{1,2} Ang III is the preferred agonist for renal AT₂ receptors, which are responsible for sodium excretion into the urine.³ Ang III induces the same level of aldosterone synthesis as Ang II but has lower vasoconstrictive activity *in vivo*.⁴ In the brain renin-angiotensin system, Ang III increases sympathetic nerve activity and vasopressin release and dampens the baroreflex leading to higher blood pressure.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. Wright, J.W. and Harding, J.W. Brain renin-angiotensin--a new look at an old system. *Prog. Neurobiol.* **95(1)**, 49-67 (2011).
3. Kemp, B.A., Bell, J.F., Rottkamp, D.M., *et al.* Intrarenal angiotensin III is the predominant agonist for proximal tubule angiotensin type 2 receptors. *Hypertension* **60(2)**, 387-395 (2012).
4. Blair-West, J.R., Coghlan, J.P., Denton, D.A., *et al.* A dose-response comparison of the actions of angiotensin II and angiotensin III in sheep. *J. Endocrinol.* **87(3)**, 409-417 (1980).
5. Gao, J., Marc, Y., Iturrioz, X., *et al.* A new strategy for treating hypertension by blocking the activity of the brain renin-angiotensin system with aminopeptidase A inhibitors. *Clin. Sci. (Lond.)* **127(3)**, 135-148 (2014).

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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