

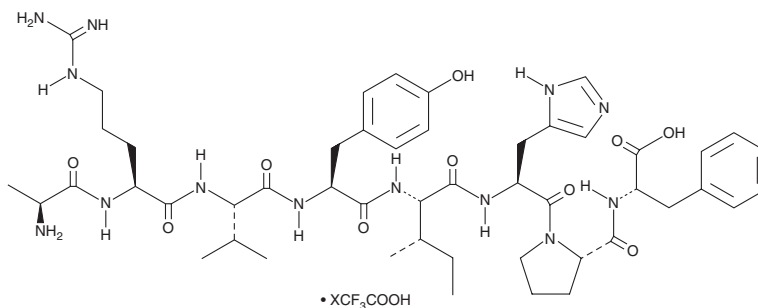
PRODUCT INFORMATION



Angiotensin A (trifluoroacetate salt)

Item No. 36063

Formal Name: L-alanyl-L-arginyl-L-valyl-L-tyrosyl-L-isoleucyl-L-histidyl-L-prolyl-L-phenylalanine, trifluoroacetate salt
Synonyms: Ala-Arg-Val-Tyr-Ile-His-Pro-Phe, Des[Asp¹]-[Ala¹]-Ang II
MF: C₄₉H₇₁N₁₃O₁₀ • XCF₃COOH
FW: 1,002.2
Purity: ≥98%
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

Angiotensin A (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the angiotensin A (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Angiotensin A (trifluoroacetate salt) is soluble in the organic solvent DMSO at a concentration of approximately 5 mg/ml.

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 angiotensin A (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of angiotensin A (trifluoroacetate salt) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Angiotensin A is an angiotensin II type 1 (AT₁) and AT₂ receptor agonist and active metabolite of the peptide hormone angiotensin II (Item No. 17150).¹ It is formed from angiotensin II via decarboxylation of the N-terminal aspartate residue. Angiotensin A binds to AT₁ and AT₂ receptors in HEK293 cells expressing the rat receptors (IC₅₀s = 0.29 and 0.12 nM, respectively, in radioligand binding assays) and induces calcium mobilization in vascular smooth muscle cells (VSMCs; EC₅₀ = 100 nM). It increases the perfusion pressure in isolated perfused rat kidney (EC₅₀ = 443 nM), an effect that can be reversed by the AT₁ antagonist EXP-3174 (losartan carboxylic acid; Item No. 15957). The ratio of angiotensin A to angiotensin II (Ang A/Ang II) in the plasma is increased in patients with end-stage renal failure and serum levels of angiotensin A are decreased in patients with pulmonary arterial hypertension.^{1,2}

References

1. Jankowski, V., Vanholder, R., van der Giet, M., *et al.* Mass-spectrometric identification of a novel angiotensin peptide in human plasma. *Arterioscler. Thromb. Vasc. Biol.* **27**(2), 297-302 (2007).
2. Sandoval, J., Del Valle-Mondragón, L., Masso, F., *et al.* Angiotensin converting enzyme 2 and angiotensin (1-7) axis in pulmonary arterial hypertension. *Eur. Respir. J.* **56**(1), 1902416 (2020).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/19/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM