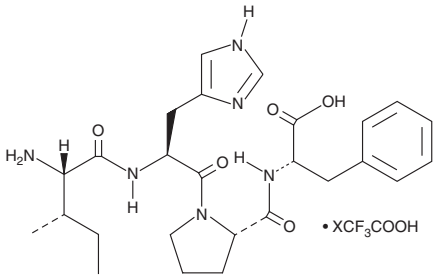
PRODUCT INFORMATION

Angiotensin II (5-8) (human, rat, mouse) (trifluoroacetate salt)

Item No. 24739

Formal Name:	L-isoleucyl-L-histidyl-L-prolyl-L-phenylalanine, 2,2,2-trifluoroacetate
Synonym:	Angiotensin (5-8)
MF:	$C_{26}H_{36}N_6O_5 \bullet XCF_3COOH$
FW:	512.6
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 (5-8) (human, rat, mouse) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the angiotensin II (5-8) (human, rat, mouse) (trifluoroacetate salt) in water. The solubility of angiotensin II (5-8) (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 (5-8) is an endogenous C-terminal fragment of the peptide vasoconstrictor angiotensin II (Item No. 17150).[1] It inhibits renin (Item No. 10006217) release from rat kidney slices at a concentration of 50 µM and relaxes rat aorta pre-contracted with phenylephrine (Item Nos. 17205 | 18619; EC_{50} = 0.28 µM).[1,2] *In vivo*, microinjection of angiotensin II (5-8) into the ventrolateral periaqueductal gray (vlPAG) of rats increases mean arterial pressure (MAP) and decreases heart rate (HR) by approximately 2.7- and 3-fold less, respectively, than angiotensin II.[1] It increases the latency to withdrawal in a tail-flick test and the mechanical withdrawal threshold in an incision allodynia test in rats when administered at a dose of 0.2 nmol into the vlPAG. Angiotensin II (5-8) (0.4 nmol, vlPAG microinjection) reduces the number of entries and time spent in the open arms of the elevated plus maze and increases the mean startle amplitude, a measure of conditioned fear, in response to foot shock.[3]

References

1. 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).
2. Naftilan, A.J. and Oparil, S. Inhibition of renin release from rat kidney slices by the angiotensins. Am. J. Physiol. **235(1)**, F62-F68 (1978).
3. Genaro, K., Juilano, M.A., Prado, W.A., *et al.* Effects of angiotensin (5-8) microinfusions into the ventrolateral periaqueductal gray on defensive behaviors in rats. *Behav. Brain Res.* **256**, 537-544 (2013).

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