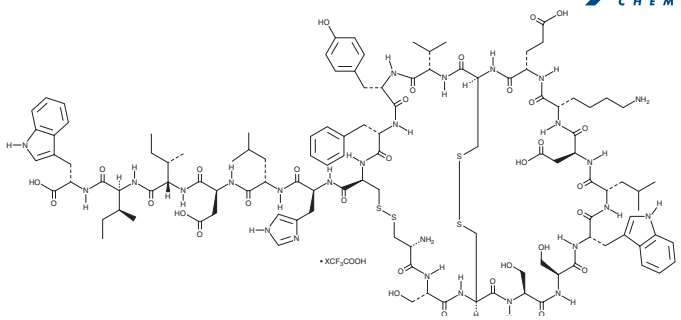
PRODUCT INFORMATION

Endothelin-2 (human) (trifluoroacetate salt)

Item No. 24412



Synonym:	ET-2 (human)
MF:	$C_{115}H_{160}N_{26}O_{32}S_4 \bullet XCF_3COOH$
FW:	2,546.9
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

Endothelin-2 (human) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the endothelin-2 (human) (trifluoroacetate salt) in water. The solubility of endothelin-2 (human) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Endothelin-2 is a peptide vasoconstrictor and ligand for the endothelin (ET) receptors ET_A and ET_B (K_bs= 32.8 and 1.33 nM, respectively).[1] It induces β-arrestin recruitment in CHO-K1 cells expressing human ET_A and ET_B (pD_2s =8.75 and 8.55, respectively). *Ex vivo*, endothelin-2 induces vasoconstriction in isolated rat mesenteric arterial beds (ED_{50} = 90.8 pmol).[2] Endothelin-2 also induces contraction of isolated rat uteri, an effect which is reversed by the ET_A antagonist BQ-123 but not the ET_B antagonist BQ-788 (Item No. 17403).[3] Infusion of endothelin-2 restores vasoconstriction of vessels at the follicular apex of the ovarian follicle and ovulation in $Amhr2^{cre/+}Smo2$ mice.[4]

References

1. Maguire, J.J., Kuc, R.E., Pell, V.R., *et al.* Comparison of human ET_A and ET_B receptor signalling *via* G-protein and β-arrestin pathways. *Life Sci.* **91(13-14)**, 544-549 (2012).
2. Douglas, S.A. and Hiley, C.R. Endothelium-dependent vascular activities of endothelin-like peptides in the isolated superior mesenteric arterial bed of the rat. *Br. J. Pharmacol.* **101(1)**, 81-88 (1990).
3. Kousides, M., Story, M.E., and Pennefather, J.N. Endopeptidase 24.11 inhibition does not modify uterotonic effects of endothelins in rat uterus. *Peptides* **19(9)**, 1585-1593 (1998).
4. Migone, F.F., Cowan, R.G., Williams, R.M., *et al. In vivo* imaging reveals an essential role of vasoconstriction in rupture of the ovarian follicle at ovulation. *Proc. Natl. Acad. Sci. U.S.A.* **113(8)**, 2294-2299 (2016).

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