



# SZABO SCANDIC

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## Produktinformation



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# PRODUCT INFORMATION



## Endothelin-3 (human, rat) (trifluoroacetate salt)

Item No. 24413

**Formal Name:** L-cysteinyl-L-threonyl-L-cysteinyl-L-phenylalanyl-L-threonyl-L-tyrosyl-L-lysyl-L- $\alpha$ -aspartyl-L-lysyl-L- $\alpha$ -glutamyl-L-cysteinyl-L-valyl-L-tyrosyl-L-tyrosyl-L-cysteinyl-L-histidyl-L-leucyl-L- $\alpha$ -aspartyl-L-isoleucyl-L-isoleucyl-L-tryptophan cyclic (1 $\rightarrow$ 15),(3 $\rightarrow$ 11)-bis(disulfide), 2,2,2-trifluoroacetate

**Synonym:**

ET-3

**MF:** C<sub>121</sub>H<sub>168</sub>N<sub>26</sub>O<sub>33</sub>S<sub>4</sub> • XCF<sub>3</sub>COOH

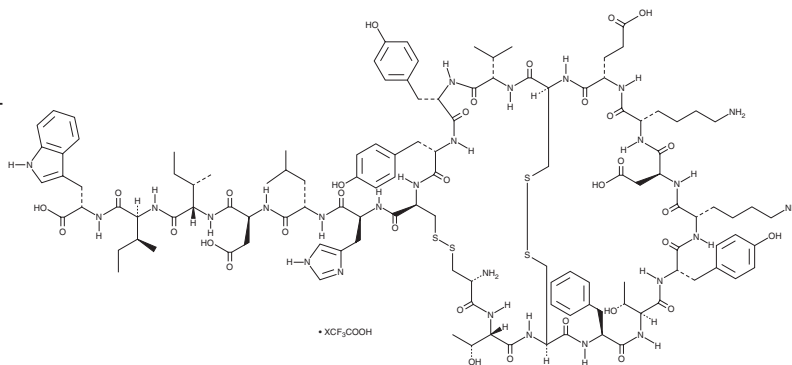
**FW:** 2,643.0

**Purity:**  $\geq$ 95%

**Supplied as:** A lyophilized powder

**Storage:** -20°C

**Stability:**  $\geq$ 2 years



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

### Laboratory Procedures

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

### Description

Endothelin-3 is a peptide vasoconstrictor and a ligand of the endothelin (ET) receptors ET<sub>A</sub> and ET<sub>B</sub> (K<sub>b</sub>s = 1.05 and 1.49, respectively).<sup>1</sup> It induces  $\beta$ -arrestin recruitment in CHO-K1 cells expressing human ET<sub>A</sub> and ET<sub>B</sub> (pD<sub>2</sub>s = 7.31 and 9.44, respectively). Endothelin-3 increases blood pressure in spontaneously hypertensive and normotensive rats when administered at doses of 310 and 955 pmol/kg, respectively.<sup>2</sup> It also stimulates migration and adhesion of enteric neural crest cells (ENCCs) to the embryonic gut in mice via interaction with ET<sub>B</sub>.<sup>3</sup> Mutations in the endothelin-3 gene, *Edn3*, induce distal aganglionosis caused by failed colonization of ENCCs in the hindgut and lack of ENCC migration to the ileo-caecal junction in mice.

### References

1. Maguire, J.J., Kuc, R.E., Pell, V.R., *et al.* Comparison of human ET<sub>A</sub> and ET<sub>B</sub> receptor signalling via G-protein and  $\beta$ -arrestin pathways. *Life Sci.* **91(13-14)**, 544-549 (2012).
2. Watanabe, T.X., Kumagaya, S., Nishio, H., *et al.* Effects of endothelin-1 and endothelin-3 on blood pressure in conscious hypertensive rats. *J. Cardiovasc. Pharmacol.* **13(Suppl 5)**, S207-S208 (1989).
3. Gazquez, E., Watanabe, Y., Broders-Bondon, F., *et al.* Endothelin-3 stimulates cell adhesion and cooperates with  $\beta$ 1-integrins during enteric nervous system ontogenesis. *Sci. Rep.* **6(37877)**, 1-14 (2016).

#### 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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