

# PRODUCT INFORMATION



## [Ser<sup>4</sup>,Ile<sup>8</sup>]-Oxytocin (trifluoroacetate salt)

Item No. 24767

**Formal Name:** 4-L-serine-8-L-isoleucine-oxytocin, trifluoroacetate salt

**Synonym:** Isotocin

**MF:** C<sub>41</sub>H<sub>63</sub>N<sub>11</sub>O<sub>12</sub>S<sub>2</sub> • XCF<sub>3</sub>COOH

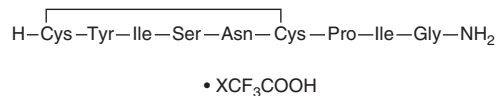
**FW:** 966.1

**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

[Ser<sup>4</sup>,Ile<sup>8</sup>]-Oxytocin (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the [Ser<sup>4</sup>,Ile<sup>8</sup>]-oxytocin (trifluoroacetate salt) in water. The solubility of [Ser<sup>4</sup>,Ile<sup>8</sup>]-oxytocin (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

[Ser<sup>4</sup>,Ile<sup>8</sup>]-Oxytocin is a neuropeptide and analog of oxytocin (Item No. 11799).<sup>1-3</sup> *In vivo*, [Ser<sup>4</sup>,Ile<sup>8</sup>]-oxytocin increases activity of slow-firing oxytocin neurons and triggers the milk ejection reflex in female rats when injected into the third ventricle at a dose of 1 ng.<sup>1</sup> It induces uterine contraction in female rats and prevents penile erection and yawning in male rats.<sup>2</sup> [Ser<sup>4</sup>,Ile<sup>8</sup>]-Oxytocin also decreases blood glucose, glucose intolerance, and hyperinsulinemia without affecting body weight in mice with high-fat diet-induced type 2 diabetes.<sup>3</sup>

### References

1. Freund-Mercier, M.J. and Richard, P. Electrophysiological evidence for facilitatory control of oxytocin neurones by oxytocin during suckling in the rat. *J. Physiol.* **352**, 447-466 (1984).
2. Argiolas, A., Melis, M.R., Stancampiano, R., *et al.* Penile erection and yawning induced by oxytocin and related peptides: Structure-activity relationship. *Peptides* **10(3)**, 559-563 (1989).
3. Zhou, Y., Rodriguez, A.L., Williams, R., *et al.* Synthesis and SAR of novel, non-MPEP chemotype mGluR5 NAMs identified by functional HTS. *Bioorg. Med. Chem. Lett.* **19(23)**, 6502-6506 (2009).

#### 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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