

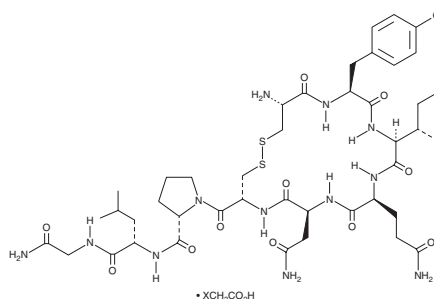
PRODUCT INFORMATION



Oxytocin (acetate)

Item No. 11799

CAS Registry No.: 6233-83-6
Formal Name: 1,2-dithia-5,8,11,14,17-pentaazacycloeicosane, acetate
Synonym: Oxt
MF: $C_{43}H_{66}N_{12}O_{12}S_2 \cdot XC_2H_4O_2$
FW: 1,007.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 278 nm
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Oxytocin is supplied as a crystalline solid. A stock solution may be made by dissolving the oxytocin in the solvent of choice, which should be purged with an inert gas. Oxytocin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of oxytocin in these solvents is approximately 5, 14, and 30 mg/ml, respectively.

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 oxytocin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of oxytocin in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Oxytocin is a nonapeptide hormone primarily synthesized in magnocellular neurons of the paraventricular and supraoptic nuclei of the hypothalamus. It is known best for its role in stimulating uterine contraction and lactation and is important for social memory and attachment, sexual and maternal behavior, and aggression.^{1,2} Also, it has been implicated in various non-social behaviors, including learning, anxiety, feeding, and pain perception.^{1,2}

References

1. Lee, H.-J., Macbeth, A.H., Pagani, J., *et al.* Oxytocin: The great facilitator of life. *Prog. Neurobiol.* **88**(2), 127-151 (2009).
2. Gimpl, G. and Fahrenholz, F. The oxytocin receptor system: Structure, function, and regulation. *Physiol. Rev.* **81**(2), 629-683 (2001).

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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