

OXT

Synthetic Human Oxytocin

Catalog No.	CRO300A	Quantity:	5 mg
	CRO300B		25 mg
	CRO300C		100 mg

Alternate Names: OT, OT-NPI, Neurophysin 1

Description: Oxytocin (OXT) is a posterior pituitary hormone which is synthesized as an inactive precursor in the hypothalamus along with its carrier protein Neurophysin I. Together with Neurophysin, it is packaged into neurosecretory vesicles and transported axonally to the nerve endings in the neurohypophysis, where it is either stored or secreted into the bloodstream. The precursor seems to be activated while it is being transported along the axon to the posterior pituitary. OXT contracts smooth muscle during parturition and lactation. It is also involved in cognition, tolerance, adaptation and complex sexual and maternal behavior, as well as in the regulation of water excretion and cardiovascular functions. OXT stimulates uterine smooth muscle contractions indirectly and stimulates the mammary glands to increase lactation without increasing the production of milk. Synthetic Human Oxytocin is a single, non-glycosylated, polypeptide chain containing 9 amino acids. Oxytocin has a molecular formula of $C_{43}H_{66}N_{12}O_{12}S_2$.

Concentration: 1 mg/ml before lyophilization

GeneID: 5020

Source: Synthetic

Molecular Weight: ~1.0 kDa

Formulation: Lyophilized from a sterile filtered solution without additives.

Purity: >98.0% as determined by RP-HPLC analysis.

Specific Activity: >480 IU/mg

Amino Acid Sequence: Cys-Tyr-Ile-Gln-Asn-Cys-Pro-Leu-Gly-NH₂.

Reconstitution: It is recommended to reconstitute the lyophilized Oxytocin in sterile, distilled H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Storage & Stability: Stable at room temperature for 3 weeks. On receipt, store desiccated below -20°C. After reconstitution, protein can be stored at 2-4°C for 1 week. For longer term, store in working aliquots below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA) **Avoid repeated freeze-thaw cycles.**

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