Product Specification Sheet

Oxytocin (OT) Pure Peptide

Cat # OT51-P-1	Oxytocin (full length, 9-aa amide) pure peptide, active	SIZE: 1 mg
Cat # OT51-P-5	Oxytocin (full length, 9-aa amide) pure peptide, active	SIZE: 5 mg

The hypothalamic **Oxytocin** (OT) is a nine-amino acid peptide, which exerts multiple biological actions as a hormone and as neurotransmitter. OT stimulates uterine smooth muscle and mammary myoepithelial cell contraction, prostaglandin production by uterine endometrial and amnion cells, milk ejaculation from the mammary gland, and induction of specific mating behavior and maternal behaviors. Just before the onset of labor, uterine myometrium becomes extremely sensitive to oxytocin, for which it is a primary target tissue, because of a dramatic increase in the number of oxytocin receptors. OT initiates its physiological activity by interacting with the G protein-coupled **receptor** (GPCR) known as **oxytocin receptor (OTR).** The encoded receptor is a 388-amino-acid polypeptide with 7 transmembrane domains typical of G protein-coupled receptors. Messenger RNAs for the receptor are of two sizes, 3.6 kilobases in breast, and 4.4 kilobases in ovary, uterine endometrium and myometrium. The mRNA level in the myometrium is very high at term.

Source of Antigen

Cat # OT51-P-1 & OT51-5

Sequence:

Cys-Tyr-Ile-Gln-Asn-Cys-Pro-Leu-Gly-NH2

Mol Wt:1000.8
Formula: $C_{43}H_{66}N_{12}O_{12}S_2$
Form: Powder
Disulfide Bridge Disulfide bridge Cys_1-Cys_6

Solubility: Water (1 mg/ml)

Storage: Store powder at -20oC for up to 6 months.

After reconstitution in water, store solution in small aliquots at -20oC for 3-6 months. Do not freeze and thaw or store diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Specificity & Cross-reactivity

The OT51-P peptide sequence is 100% conserved in mouse, rat, human, bovine, sheep and other species

General References: 1. Rehbein M et al (1986) Biol Chem. Hoppe-Seyler 367, 695-704; Ivell R et al (1984) PNAS 81, 2006-2010; Mohr E et al (1988) FEBS Lett. 242, 144-148; Vhauvez MT et al (1981) BBRC 103, 595-603; Schlesinger DH et al (1980) FEBS Lett. 80, 371-373; Hara Y et al (1990) Brain res. Mol Brain res. 8, 319-324; ozen F et al (1995) PNAS 92, 200-204; Kumura T et al (1992) Nature 356, 526-529.

*This product is for In vitro research use only.

Antibodies for AVP-V2 and AVP-V1a/b

Antibodies to AQP1-5, and Urea Transporter

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