ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Oxytocin (OT) Antibodies

Cat # OT15-P	Rat/HumanOT Control Peptide FORM: Soln Lyophilized.	SIZE: 100 ug
Cat # OT15-S	Rabbit Anti-Rat/Human OT antiserum FORM: Soln Lyophilized.	SIZE: 100 ul
Cat # OT15-A	Rabbit Anti-Rat/Human OT IgG, aff. Pure FORM: Soln Lyophilized.	SIZE: 100 ug

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 and Antibodies

Antigen	Rat OT is 9-aa hypothalamic peptide (1). Rat/Human OT sequence (CYI QNC PLG) designated (**designated OT15-P, control peptide**) (1) conjugated to KLH
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#OT15-S) and IgG, purified over antigen-agarose (Cat # OT15-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified, undiluted)

100 ul/vial solution — 50 ul/vial lyophilized powder

contains 0.05% sodium azide

Reconstitute powder 50 ul or 100 ul PBS

Affinity pure IgG

100 ug/100ul solution — 50 ug/50 ul lyophilized powder

Buffer: PBS+0.1% BSA+0.05% azide

Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution — 50 ug/50 ul lyophilized powder

Buffer: PBS pH 7.5, contains 0.05% sodium azide

Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Immunohistochemistry: Not tested. We recommend the use of affinity pure antibodies at 2-20 ug/ml using paraformaldehyde fixed tissues.

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Specificity & Cross-reactivity

The OT15-P peptide sequence is 100% conserved in mouse, rat, human, bovine, sheep and other species. Antibody crossreactivity in various species is not established. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at: www.4adi.com\data\abblock.html).

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

OT15-S 50401A

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