

Product Specification Sheet

Prepro-OREXIN (Prepro-Hypocretin-A) Antibodies

Cat. # PPOX11-S	Rabbit Anti-Mouse prepro-Orexin antiserum	SIZE: 100 ul
Cat. # PPOX11-A	Rabbit Anti-Mouse prepro-Orexin IgG (aff pure)	SIZE: 100 ug
Cat. # PPOX11-P	Mouse prepro-Orexin Control peptide	SIZE: 100 ug

Several peptides associated with feeding behavior have been reported recently. Orexins (**Orexin-A** and **Orexin-B**) are a family of hypothalamic neuropeptides selectively expressed in the hypothalamus (1-2). Orexin-A and Orexin-B are derived from the same precursor (Prepro-orexin) by proteolytic cleavage. **Prepro-orexin** is 130 amino acid long peptide with a putative 33 AA secretory sequence, a hydrophobic core followed by residues with small polar side chains. The expression was detected in brain and to a small extent in testis (1-2). These neuropeptides bind and activate two closely related **Orexin receptors**--G-protein coupled receptors (GPCRs) **OX1R** and **OX2R**.

Source of Antigen and Antibodies

Antigen	17-aa peptide from mouse prepro-Orexin (1); Designation (# PPOX11-P, control/blocking peptide) conjugated to KLH; epitope location ~ C-terminus
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#PPOX11-S) and IgG, purified over antigen-agarose (Cat # PPOX11-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	# 20009-1 , Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -200C and powder at 4oC or -20oC..

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

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique).

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: not tested. We recommend the use of aff purified IgG at 2-20 ug/ml.

Specificity & Cross-reactivity

Mouse PPOX11-P control peptide shows 82% and 70% identity with rat and human prepro-orexins, respectively. The PPOX11 sequence is not found in Orexin-A and Orexins-B. Therefore, antibodies will not detect mature Orexins A or Orexin-B. 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 see detailed protocol at the web site).

General References: Sakurai, T. et al. (1998) *Cell*, **92**, 573-585; DeLecca L et al (1998) *PNAS* **95**, 322-327

(2) Citations of ADI's Antibodies (see web site for updated list)

*This product is for *in vitro* research use only.

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