ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Prepro-OREXIN (Prepro-Hypocretin-A) Antibodies

□ **Cat.** # **PPOX11-S**	Rabbit Anti-Mouse prepro-Orexin antisera,	**SIZE:** 100 ul
□ **Cat. # PPOX11-A**	Rabbit Anti-Mouse prepro-Orexin Ig G (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, undiluted)
□ 100 ul/vial □ 50 ul/vial
□ solution □ lyophilized powder
contains 0.05% sodium azide
Reconstitute in the original vol. of water

Affinity pure IgG
□ 100 ug/100ul □ 50 ug/50 ul
□ solution □ lyophilized powder
Buffer: 100 mM Tris, pH 7.5, 0.2% BSA
contains 0.05% sodium azide
Reconstitute in the original vol. of water

Control/blocking peptide
□ 100 ug/100 ul □ 50 ug/50 ul
□ solution □ lyophilized powder
Buffer: PBS, pH 7.5 and 0.05% sodium azide
Reconstitute in the original vol. **o**f water

Storage

Short-term: unopened, undiluted 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

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 affinity purified antibody 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 at: www.4adi.com\data\abblock.html).

General References:

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

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

Related material available from ADI:

Anti-Orexin1 and 2 receptors, Ant-pre-proorexins, Anti-CART (Cocaine and Amphetamine related transcript), Antibodies against Leptin, Leptin receptors, Tubby, Tub Homolog, Uncoupling proteins, AGRP, etc

PPOX11-S-A-P 170103SV

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