ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

OREXIN-B (Hypocretin-B) Antibodies

Cat. OXB11-S	Rabbit Anti-Mouse Orexin-B antiserum	**SIZE:** 100 ul
Cat. OXB11-A	Rabbit Anti-Mouse Orexin-B, IgG (aff pure)	**SIZE**: 100 ug
Cat. OXB11-P	Mouse Orexin-B 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	13-aa peptide of mouse Orexin-B (1-13 aa; RPG PPG LQG RLQ R) (1) (gene accession #055241) ; **Designated (OXB11-P or control peptide)** conjugated to KLH
Location	~N-terminal
Ab Host/type	Rabbit, Polyclonal antiserum (#OXB11-S) and IgG, purified over antigen-agarose (Cat # OXB11-A) supplied in PBS+0.1% BSA+0.05% azide
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Full-length mouse/rat Orexin-B (Cat # OXB12-P) and human Orexin-B (Cat # OXB14-P) is also available.

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**: We recommend the use of affinity purified antibody at 2-20 ug/ml (see refs 2).

Specificity & Cross-reactivity

Mouse OXB11-P control peptide sequence is 100% homologous in mouse, pig, bovine, dog, rat and 92 % human Orexin-B. Anti-mouse Orexin-B reacts with the full-length mouse, rat, and human Orexin-B. The OXB11 epitope is not found in Orexin-A. Since Orexins-A and Orexin–B are derived from an unprocessed pre-pro orexins (130 aa), the anti-Orexin-B antibodies may also react with pre-pro orexins. 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) 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)

Jain, M R, 2000, Regulatory Peptides, 87, 19-24
Caillol M, 2003, Brain Res. 960, 48-61
Kirchgessner, KM, 1999, Neuron 24: 941-951
Krowicki ZK, 2002, Am J Physiol Cell Physiol 283, G465
Ciriello J, 2003, Brain Research, 967, 28, 123-131

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

Provided in b**uffer**: 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

Provided in buffer: PBS pH 7.5, 0.05% sodium azide

Reconstitute powder in PBS at 1 mg/ml.

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.

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

Oxb11-S-A-P 60902A

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