ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Human OREXIN-B (Hypocretin-B)

Cat. OXB14-P	Human Orexin-B peptide 1-28 aa full length	**SIZE**:	**100** ug
Cat. OXB14-P-01	Human Orexin-B peptide 1-28 aa full length	**SIZE**:	**1 mg**
Cat. OXB14-P-05	Human Orexin-B peptide 1-28 aa full length	**SIZE**:	**5 mg**
Cat. OXB14-P-10	Human Orexin-B peptide 1-28 aa full length **FORM:** Soln Lyophilized	**SIZE**:	**10 mg**

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 peptide

Human Orexin-B is 28-aa peptide. Full-length Orexin-B peptide **(designated OXB14-P)** corresponding to 1-28 aa (RSG PPG LQG RLQ RLL QAS GNH AAG ILT M-AMIDE; mol wt. 2901) of the human Orexin B (1-2) was synthesized and purified by HPLC. Human Orexin-B differs from the mouse and rat by 2 amino acids. Full-length mouse/rat Orexin-B (Cat # OXB12-P) is also available.

Full length Orexin-A produced by us has been shown to be biologically active (3).

Form & Storage of Peptides

Control/blocking peptide

100 ug/100 ul	50 ug/50 ul
Solution	lyophilized powder

Buffer: PBS, pH 7.5
Reconstitute 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.

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General References:

Sakurai, T. et al. (1998) *Cell*, **92**, 573-585.; DeLecca L et al (1998) PNAS 95, 322-327; Kirchgessner et al (1999) Neuron 24, 941; Dube MG et al (1999) Brian res. 842, 473-477; Jain MR et al (2000) Regulatory Peptides 87, 18-24.

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

Related material available from ADI:

Anti-Orexin 1 and 2 receptors, Anti-pre-proorexins

Anti-CART (Cocaine and Amphetamine related transcript)

Antibodies against Leptin, Leptin receptors, Tubby, Tub Homolog, Uncoupling proteins (**UCPs**) , AGRP, etc,

Melanocortin receptors, BRS-3, **Mahogany**

Western Blot recycling kit (Use the same blot to probe with multiple antibodies OX1, OX 2, etc.) **recycle blot at room temp in 5-10 min**; No mercaptoethanol or heating required).

OXB14-P-01-05-10 71210A

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