ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Mouse/Rat/Human OREXIN-A (Hypocretin-A)

Cat. OXA12-P	Mouse/rat/human Orexin-A peptide 1-33 aa full length	**Size**:	100 ug
Cat. OXA12-P-01	Mouse/rat/human Orexin-A peptide 1-33 aa full length	**Size**:	1 mg
Cat. OXA12-P-05	Mouse/rat/human Orexin-A peptide 1-33 aa full length	**Size**:	5 mg
Cat. OXA12-P-10	Mouse/rat/human Orexin-A peptide 1-33 aa full length	**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

Mouse/rat/human Orexin-A is 33-aa peptide. Full length Orexin-A peptide **(designated OXA12-P)** corresponding to 1-33 aa (<EPL PDC CRQ KTC SCR LYE LLH GAG NHA AGI LTL-amide; <E is Pyroglutamic; 2 disulfides at Cys6-Cys12 & Cys7-Cys; mol wt. 3567.00) of the mouse (same in rat and human) Orexin A (1) was synthesized and purified by HPLC.

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
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.

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-pro-Orexins

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).

OXA12-P-01-05-10 71210A

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