Orexin A (OX-A) ELISA Kit for Pigeon

PRODUCT OVERVIEW

Product Name	Orexin A (OX-A), ELISA Kit
Full Product Name	Pigeon Orexin A ELISA Kit
Product Gene Name	OX-A elisa kit
Species Reactivity	Pigeon
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	13,363 Da
OMIM	161400
3D Structure	ModBase 3D Structure for O43612
Related Product Information for OX-A elisa kit	MBS097086 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Orexin A (OX-A) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing OX-A. The ELISA analytical biochemical technique of the MBS097086 kit is based on OX-A antibody-OX-A antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect OX-A antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, OX-A. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of OX-A elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OX-A. It may not necessarily be applicable to this product.

NCBI GI #	4557635
NCBI GeneID	3060
NCBI Accession #	NP_001515.1
UniProt Primary Accession #	O43612
UniProt Related Accession #	O43612
GenBank Nucleotide #	NM_001524.1
NCBI Official Full Name	orexin
NCBI Official Synonym Full Names	hypocretin (orexin) neuropeptide precursor
NCBI Official Symbol	HCRT
NCBI Official Synonym Symbols	OX; PPOX; NRCLP1
UniProt Protein Name	Orexin
UniProt Synonym Protein Names	Hypocretin; HcrtCleaved into the following 2 chains:Orexin-A; Alternative name(s):; Hypocretin-1; Hcrt1Orexin-B; Alternative name(s):; Hypocretin-2
Protein Family	Orexin

UniProt Gene Name	HCRT
UniProt Synonym Gene Names	OX; PPORX; PPOX; Hcrt; Hcrt1; Hcrt2
UniProt Entry Name	OREX_HUMAN
NCBI Protein Information	orexin; prepro-orexin
NCBI Summary for OX-A	This gene encodes a hypothalamic neuropeptide precursor protein that gives rise to two mature neuropeptides, orexin A and orexin B, by proteolytic processing. Orexin A and orexin B, which bind to orphan G-protein coupled receptors HCRTR1 and HCRTR2, function in the regulation of sleep and arousal. This neuropeptide arrangement may also play a role in feeding behavior, metabolism, and homeostasis. [provided by RefSeq, Jan 2010]
UniProt Comments for OX-A	HCRT: Neuropeptides that play a significant role in the regulation of food intake and sleep-wakefulness, possibly by coordinating the complex behavioral and physiologic responses of these complementary homeostatic functions. A broader role in the homeostatic regulation of energy metabolism, autonomic function, hormonal balance and the regulation of body fluids, is also suggested. Orexin-A binds to both OX1R and OX2R with a high affinity, whereas orexin-B binds only to OX2R with a similar high affinity. Defects in HCRT are the cause of narcolepsy type 1 (NRCLP1). Narcolepsy is a neurological disabling sleep disorder, characterized by excessive daytime sleepiness, sleep fragmentation, symptoms of abnormal rapid-eye-movement (REM) sleep, such as cataplexy, hypnagogic hallucinations, and sleep paralysis. Cataplexy is a sudden loss of muscle tone triggered by emotions, which is the most valuable clinical feature used to diagnose narcolepsy. Human narcolepsy is primarily a sporadically occurring disorder but familial clustering has been observed. Human narcolepsy is associated with a deficient orexin system. Orexins are absent and/or greatly diminished in the brain and cerebrospinal fluid (CSF) of most narcoleptic patients. Belongs to the orexin family. Protein type: Hormone Chromosomal Location of Human Ortholog: 17q21 Cellular Component: synaptic vesicle; rough endoplasmic reticulum; perinuclear region of cytoplasm; extracellular region; cell junction; secretory granule Molecular Function: type 2 hypocretin receptor binding; type 1 hypocretin receptor binding Biological Process: eating behavior; negative regulation of potassium ion transport; regulation of neurotransmitter secretion; synaptic transmission; elevation of cytosolic calcium ion concentration; negative regulation of transmission of nerve impulse; neuropeptide signaling pathway; negative regulation of DNA replication; protein kinase C activation; G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); positive regulation of calcium ion transport; regulation of excitatory postsynaptic membrane potential; positive regulation of transmission of nerve impulse Disease: Narcolepsy 1
Research Articles on OX-A	**1.** presence of CD4(+) T cells that are reactive to HCRT in narcolepsy patients and possible molecular mimicry between HCRT and a similar epitope in influenza pH1N1, pHA1275-287
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