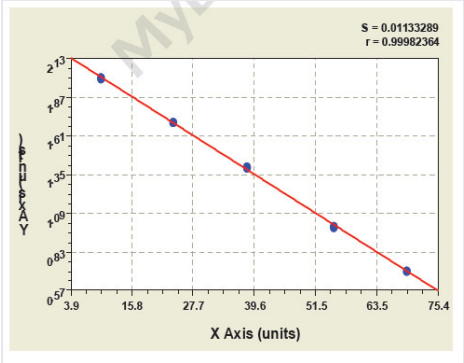
Orexins ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Orexins, ELISA Kit
Full Product Name	Human Orexins ELISA Kit
Product Gene Name	Orexins elisa kit
Species Reactivity	Human
Assay Type	Competitive
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	5.0-100ng/mL
Sensitivity	1.0ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	13,363 Da
OMIM	602358
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for Orexins elisa kit	Neurobiology
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for Orexins elisa kit	**For samples:** Serum, plasma, cell culture supernatants, body fluid and tissue homogenate **INTENDED USE** This Orexins ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Human Orexins. This ELISA kit for research use only! **PRINCIPLE OF THE ASSAY** Orexins ELISA kit applies the competitive enzyme immunoassay technique utilizing a monoclonal anti-Orexins antibody and an Orexins-HRP conjugate. The assay sample and buffer are incubated together with Orexins-HRP conjugate in pre-coated plate for one hour. After the incubation period, the wells are decanted and washed five times. The wells are then incubated with a substrate for HRP enzyme. The product of the enzyme-substrate reaction forms a blue colored complex. Finally, a stop solution is added to stop the reaction, which will then turn the solution yellow. The intensity of color is measured spectrophotometrically at 450nm in a microplate reader. The intensity of the color is inversely proportional to the Orexins concentration since Orexins from samples and Orexins-HRP conjugate compete for the anti-Orexins antibody binding site. Since the number of sites is limited, as more sites are occupied by Orexins from the sample, fewer sites are left to bind Orexins-HRP conjugate. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The Orexins concentration in each sample is interpolated from this standard curve.
Other Notes	Small volumes of Orexins 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.

Searchable Terms for Orexins purchase	MBS731250 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Orexins, 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 Orexins. The ELISA analytical biochemical technique of the MBS731250 kit is based on Orexins antibody-Orexins antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Orexins antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Orexins. 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(%).



Typical Testing Data/Standard Curve (for reference only) of Orexins elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	4557635
NCBI GeneID	3060
NCBI Accession #	NP_001515.1
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; Hcrt
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 Orexins	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 Orexins	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: synaptic transmission; elevation of cytosolic calcium ion concentration; negative regulation of transmission of nerve impulse; eating behavior; negative regulation of DNA replication; neuropeptide signaling pathway; negative regulation of potassium ion transport; protein kinase C activation; regulation of neurotransmitter secretion; 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 Orexins	**1.** Rapid postoperative increases in plasma Orexin are associated with better improvement of glucose and lipid profiles following bariatric surgery.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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