



Rabbit Anti-Orexin A antibody

SL10376R

Product Name:	Orexin A
Chinese Name:	增食欲素A/欲激素A抗体
Alias:	HCRT 1; HCRT; HCRT1; HCRT2; Hypocretin (orexin) neuropeptide precursor; Hypocretin 1; Hypocretin 2; Hypocretin A; Hypocretin; Hypocretin neuropeptide precursor; Hypocretin1; NRCLP1; Orexin A; Orexin; Orexin B; Orexin precursor; OrexinA; OX; PPORX; PPOX; PREPROOREXIN; OREX_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	3.6kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Orexin A:1-100/131
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Orexin A (hypocretin 1) a 33 amino acid peptide and orexin B (hypocretin 2), a 28 amino acid peptide, are both derived from a common 130 amino acid precursor, prepro orexin. Orexin A and Orexin B stimulate food consumption when administered intracerebroventricularly to rats. Orexin gene expression in the brain is highly restricted

to distinct populations of neurons located in specific hypothalamic regions, including the lateral hypothalamic area (LHA), a region implicated in feeding behaviour. Orexin A and orexin B bind to and activate two closely related G protein coupled receptors (GPCRs), termed Orexin 1 (OX1) and Orexin 2 (OX2) receptors. Dysfunction of the orexin peptide system has been linked to narcolepsy.

Function:

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.

Subcellular Location:

Rough endoplasmic reticulum. Cytoplasmic vesicle. Cell junction, synapse.

Note=Associated with perikaryal rough endoplasmic reticulum as well as cytoplasmic large granular vesicles at synapses.

Tissue Specificity:

Abundantly expressed in subthalamic nucleus but undetectable in other brain regions tested (hypothalamus was not tested) and in heart, placenta, lung, liver, skeletal muscle, kidney and pancreas.

Post-translational modifications:

Specific enzymatic cleavages at paired basic residues yield the different active peptides.

DISEASE:

Defects in HCRT are the cause of narcolepsy type 1 (NRCLP1) [MIM:161400]. 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. Note=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.

Similarity:

Belongs to the orexin family.

SWISS:

O43612

Gene ID:
3060

Database links:

[Entrez Gene: 3060](#)Human

[Oimim: 602358](#)Human

[SwissProt: O43612](#)Human

[Unigene: 158348](#)Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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