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Orexin Prepro Rabbit pAb

Catalog # AP98307

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O43612
Other Accession	O43612
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	13363
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Orexin Prepro
Epitope Specificity	70-97/131
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the orexin family.
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. These neuropeptides bind and activate two closely related Orexin receptors—G-protein coupled receptors (GPCRs) OX1R and OX2R. Orexins (Orexin A and Orexin B) are a family of hypothalamic neuropeptides selectively expressed in the hypothalamus. Orexin A and Orexin B are derived from the same precursor (Prepro-orexin) by proteolytic cleavage.

Additional Information

Gene ID	3060
	NRCLP1; OX; PPOX; OREX_HUMAN; HCRT; Hypocretin (Hcrt); Orexin precursor;

Other Names	Prepro-orexin; Preprohypocretin; PPORX; hypocretin neuropeptide precursor; hypocretin (orexin) neuropeptide precursor; orexin
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	HCRT (HGNC:4847)
Synonyms	OX, PPORX, PPOX
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.
Cellular Location	Rough endoplasmic reticulum {ECO:0000250|UniProtKB:O55232}. Cytoplasmic vesicle {ECO:0000250|UniProtKB:O55232}. Synapse {ECO:0000250|UniProtKB:O55232} Note=Associated with perikaryal rough endoplasmic reticulum as well as cytoplasmic large granular vesicles at synapses {ECO:0000250|UniProtKB:O55232}
Tissue Location	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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.