Orexin (HCRT) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Orexin (Hcrt), Recombinant Protein
Full Product Name	Recombinant Rat Orexin (Hcrt), partial
Product Gene Name	Hcrt recombinant protein
Sequence	QPLPDCCRQK TCSCRLYELL HGAGNHAAGI LTL
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	13,645 Da
Sequence Positions	33-65aa, Cytoplasmic domain
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for O55232
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Hcrt recombinant protein	This gene encodes a hypothalamic neuropeptide precusor 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.
Other Notes	Small volumes of Hcrt recombinant protein 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 Hcrt purchase	MBS1156880 is a recombinant protein targeting Hcrt. Also known as Recombinant Rat Orexin (Hcrt), partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

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

NCBI GI #	6981016
NCBI GeneID	25723
NCBI Accession #	NP_037311.1
UniProt Primary Accession #	O55232
UniProt Related Accession #	O55232

GenBank Nucleotide #	NM_013179.2
NCBI Official Full Name	orexin
NCBI Official Synonym Full Names	hypocretin neuropeptide precursor
NCBI Official Symbol	Hcrt
NCBI Official Synonym Symbols	orexin-A
UniProt Protein Name	Orexin
UniProt Synonym Protein Names	Hypocretin; Hcrt
Protein Family	Orexin
UniProt Gene Name	Hcrt
UniProt Synonym Gene Names	Ox; Ppox; Hcrt; Hcrt1; Hcrt2
NCBI Protein Information	orexin
NCBI Summary for Hcrt	neuropeptide; involved in feeding behavior and hormone secretion regulation [RGD, Feb 2006]
UniProt Comments for 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. A modulation effect on luteinizing hormone-releasing hormone (LHRH) secretion also suggests a more minor contribution to the regulation of reproductive function. Orexin-A binds to both OX1R and OX2R with a high affinity, whereas orexin-B binds only to OX2R with a similar high affinity.
Research Articles on Hcrt	**1.** Study suggests that orexin-A, via increasing the activity of locus coeruleus neurons, mediates the induction of some morphine withdrawal-like signs independent of morphine dependence.
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