



DATASHEET

Orexin B (human)

Product overview

Name	Orexin B (human)
Cat No	HB5323
Biological description	Overview Excitatory neuropeptide at orexin receptors (K_i values are 420 and 36 nM for OX_1 and OX_2 receptors respectively). Orexin-B is synthesized in the lateral hypothalamus and perifornical area. Orexin B is a linear neuropeptide with 28 amino acids. Uses and applications Orexin B is involved in a wide range of biological functions (feeding behavior, sleep-wake cycle, energy metabolism etc.). Also shows neuroprotective activity for dopaminergic neurons in rat midbrain cultures.
Biological action	Peptide
Purity	>95%
Description	Excitatory neuropeptide at orexin OX_1/OX_2 receptors

Solubility & Handling

Storage instructions	-20 °C (desiccate)
Solubility overview	Soluble in water (1 mg/ml)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	RSGPPGLQGRLQRLQLQASGNHAAGILTM (Met-28 = C-terminal amide)
Molecular Weight	2899.38
Chemical structure	
Molecular Formula	$C_{123}H_{212}N_{44}O_{35}S$
Sequence (one letter)	RSGPPGLQGRLQRLQLQASGNHAAGILTM
Sequence (three letter)	Arg-Ser-Gly-Pro-Gly-Leu-Gln-Gly-Arg-Leu-Gln-Arg-Leu-Leu-Gln-Ala-Ser-Gly-Asn-His-Ala-Ala-Gly-Ile-Leu-Thr-Met
Modifications	Met-28 = C-terminal amide
CAS Number	205640-91-1
PubChem identifier	90479794
SMILES	<chem>CC[C@H](C)[C@@H](C(=O)N[C@@H](CC(C)C)C(=O)N[C@@H]([C@@H](C)O)C(=O)N[C@@H](CCSC)C(=O)N)NC(=O)CNC(=O)[C@H](C)NC(=O)[C@H](C)NC(=O)[C@H](CC1=CNC=N1)NC(=O)[C@H](CC(=O)N)NC(=O)CNC(=O)[C@H](CO)NC(=O)[C@H](C)NC(=O)[C@H](CCC(=O)N)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CCCNC(=N)N)NC(=O)[C@H](CCC(=O)N)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CCCNC(=N)N)NC(=O)CNC(=O)[C@H](CCC(=O)N)NC(=O)[C@H](CC(C)C)NC(=O)CNC(=O)[C@@H]2CCCNC2C(=O)[C@@H]3CCCN3C(=O)CNC(=O)[C@H](CO)NC(=O)[C@H](CCCNC(=N)N)N</chem> DHBREICAXZPFDD-WMQZXSDYSA-N
InChiKey	
Protein length	28

References

The sleep-modulating peptide orexin-B protects midbrain dopamine neurons from degeneration, alone or in cooperation

with nicotine.

Guerreiro et al (2015) Mol Pharmacol. 87(3)

PubMedID [25552485](#)

Orexin/hypocretin: a neuropeptide at the interface of sleep, energy homeostasis, and reward system.

Tsujino et al (2009) Pharmacol Rev 61(2)

PubMedID [19549926](#)

Orexin System: The Key for a Healthy Life.

Chieffi et al (2017) Front Physiol 31;8

PubMedID [28620314](#)
