



DATASHEET

Orexin A (human, rat, mouse)

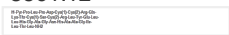
Product overview

Name	Orexin A (human, rat, mouse)
Cat No	HB2937
Biological description	Overview Excitatory neuropeptide at orexin receptors (K_i values are 20 and 38 nM for OX_1 and OX_2 receptors respectively). Orexin-A is synthesized by a cluster of neurons in the lateral hypothalamus and perifornical area. Orexin A is composed of 33 amino acids. Uses and applications The peptide is involved in a variety of physiological functions. E.g. feeding behavior, sleep/wake rhythms, thermoregulation, energy metabolism and cardiovascular activity. More recently orexins have been suggested to have a role in emotional regulation, energetic homeostasis, reward mechanisms, drug addiction, arousal system, sleep and wakefulness.
Biological action	Peptide
Purity	>95%
Description	Excitatory neuropeptide at orexin OX_1/OX_2 receptors

Solubility & Handling

Storage instructions	-20 °C
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	XPLPDCCRQKTCSCRLYELLHGAGNHAAGILT L (modifications: C-terminal amide; X-1 = Glp; Disulfide bonds: 6-12, 7-14)
Molecular Weight	3561.12
Chemical structure	
Molecular Formula	$C_{152}H_{243}N_{47}O_{44}S_4$
Sequence (one letter)	XPLPDCCRQKTCSCRLYELLHGAGNHAAGILT L
Modifications	C-terminal amide; X-1 = Glp; Disulfide bonds: 6-12, 7-14
CAS Number	205640-90-0
PubChem identifier	56842143
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](CC(C)C)C(=O)N[C@@H](C)NC(=O)[C@H](C)NC(=O)[C@H](CC1=CN=CN1)NC(=O)[C@H](CC(=O)N)NC(=O)CNC(=O)[C@H](C)NC(=O)CNC(=O)[C@H](CC2=CN=CN2)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](CC3=CC=C(C=C3)O)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CCCNC(=N)N)NC(=O)[C@@H]4CSCC[C@H]5C(=O)N[C@H](C(=O)N[C@H](C(=O)N[C@H](C(=O)N[C@H](C(=O)N[C@@H](CSSC[C@@H](C(=O)N5)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H]6CCCN6C(=O)[C@H](CC(C)C)NC(=O)[C@@H]7CCCN7C(=O)[C@H]8CCC(=O)N8)C(=O)N[C@H](C(=O)N4)CO)[C@@H](C)O)CCCCN)CCC(=O)N)CCCNC(=N)N</chem>
InChiKey	OFNHNCAUVYOTPM-IIIOAANCSA-N

Chemical name	XPLPDCCRQKTCSCRLYELLHGAGNHAAGILT _L (modifications: C-terminal amide; X-1 = Glp; Disulfide bonds: 6-12, 7-14)
MDL number	MFCD01635374

References

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