

DATASHEET

[Ala11,D-Leu15]-Orexin B


Product overview

Name	[Ala11,D-Leu15]-Orexin B
Cat No	HB3407
Biological description	Highly potent and selective OX ₂ receptor agonist which displays 400-fold selectivity over OX ₁ receptors (EC ₅₀ values are 0.13 and 52 nM for human OX ₂ receptor and OX ₁ receptor receptors respectively).
Biological action	Peptide
Purity	>95%
Description	Potent, selective OX ₂ receptor agonist

Solubility & Handling

Storage instructions	-20 °C
Solubility overview	Soluble in water (0.3 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	RSGPPGLQGRAQRLLQASGNHAAGILTM (modifications: Met-28 = C-terminal amide)
Molecular Weight	2857.28
Chemical structure	
Molecular Formula	C ₁₂₀ H ₂₀₆ N ₄₄ O ₃₅ S
Sequence (one letter)	RSGPPGLQGRAQRLLQASGNHAAGILTM
Modifications	Met-28 = C-terminal amide
CAS Number	532932-99-3
PubChem identifier	90473850
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](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]2CCCN2C(=O)[C@@H]3CCCN3C(=O)CNC(=O)[C@H](CO)NC(=O)[C@H](CCCNC(=N)N)N</chem>
InChiKey	SURUUKNICBOUOQ-UBNRXWOCSA-N

References

Orexin directly excites orexin neurons through orexin 2 receptor.

Yamanaka (2010) J Neurosci 30(38)
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Orexins/hypocretins acting at Gi protein-coupled OX 2 receptors inhibit cyclic AMP synthesis in the primary neuronal cultures.

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Development of an orexin-2 receptor selective agonist, [Ala(11), D-Leu(15)]orexin-B.

Asahi et al (2003) Bioorg Med Chem Lett 13(1)

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[12467628](#)
