

Orexin B, rat, mouse Acetate

Chemical Properties

CAS No. :

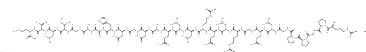
Formula: C128H219N45O36S

Molecular Weight: 2996.45

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Orexin B, rat, mouse Acetate (Rat orexin B) is an endogenous agonist at Orexin receptor with Kis of 420 and 36 nM for OX1 and OX2, respectively.
Targets(IC50)	OX Receptor
In vitro	Orexin B is derived by proteolytic amino acid precursor, prepro-orexin, which is encoded by a gene localized to chromosome 17q21 in humans. In radioligand binding studies, Orexin B has a higher affinity for the OX2 receptor[1]. Human Orexin B has two amino acid substitutions when compared with the rodent sequence. OX2 receptor is indeed a high-affinity receptor for human orexin B, with an IC50 of 36 nM in the binding assay and an EC50 of 60 nM in the [Ca2+]i transient assay. Human Orexin B has significantly lower affinity for the human OX1: the calculated IC50 in the competitive binding assay and the EC50 in the [Ca2+]i transient assay are 420 nM and 2500 nM for human orexin-B, respectively[2].
In vivo	Human Orexin B significantly augments food intake; at the 2 hr time point, 5- and 12-fold stimulation of food consumption is observed by 3 nM and 30 nM orexin-B, respectively[2].

Solubility Information

Solubility	DMSO: Insoluble, H2O: 2.5 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3337 mL	1.6686 mL	3.3373 mL
5 mM	0.0667 mL	0.3337 mL	0.6675 mL
10 mM	0.0334 mL	0.1669 mL	0.3337 mL
50 mM	0.0067 mL	0.0334 mL	0.0667 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Smart D, et al. Orexins: a new family of neuropeptides. Br J Anaesth. 1999 Nov;83(5):695-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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