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DATASHEET

SB 334867

Product overview

Name	SB 334867
Cat No	HB2913
Alternative names	SB-334867-A, SB334867A
Biological action	Antagonist
Purity	>98%
Description	Selective non-peptide orexin OX1 receptor antagonist

Images



Biological Data

Biological description

Overview

First non-peptide selective orexin-1 (OX₁) receptor antagonist which shows ~50-fold selectivity for OX₁ over OX₂ (pK_b values are 7.2 and < 5 for inhibition of intracellular Ca²⁺ release in CHO cells expressing hOX₁R and OX₂R respectively).

Uses and applications

SB-334867 shows a variety of biological effects and has been used to investigate the role of OX₁R in stress, obesity, drug addiction and relapse. It has been shown to reduce food intake and most active behaviours (eating, grooming, sniffing, locomotion and rearing), while increasing resting.

Solubility & Handling

Storage instructions

Room temperature (desiccate)

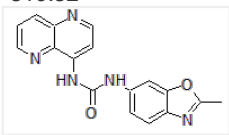
Solubility overview

Soluble in DMSO (100 mM), and in ethanol (10 mM with gentle warming). Do not add acid to any formulation to aid solubilisation as this may cause the compound to undergo hydrolysis.

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	N-(2-Methyl-6-benzoxazolyl)-N'-1,5-naphthyridin-4-yl urea
Molecular Weight	319.32
Chemical structure	
Molecular Formula	C ₁₇ H ₁₃ N ₅ O ₂
CAS Number	792173-99-0
PubChem identifier	6604926
SMILES	<chem>CC1=NC2=C(O1)C=C(C=C2)NC(=O)NC3=C4C(=NC=C3)C=CC=N4</chem>
Source	Synthetic
InChi	InChI=1S/C17H13N5O2/c1-10-20-12-5-4-11(9-15(12)24-10)21-17(23)22-14-6-8-18-13-3-2-7-19-16(13)14/h2-9H,1H3,(H2,18,21,22,23)
InChiKey	AKMNUCBQGHFICM-UHFFFAOYSA-N
MDL number	MFCD06411602
Appearance	White solid

References

SB-334867-A: the first selective orexin-1 receptor antagonist.

Smart et al (2001) Br J Pharmacol. 132(6)

PubMedID [11250867](#)

SB-334867, a selective orexin-1 receptor antagonist, enhances behavioural satiety and blocks the hyperphagic effect of orexin-A in rats.

Rodgers et al (2001) Eur J Neurosci. 13(7)

PubMedID [11298806](#)

SB-334867 (an Orexin-1 Receptor Antagonist) Effects on Morphine-Induced Sensitization in Mice-a View on Receptor Mechanisms.

Lupina et al (2018) Mol Neurobiol 55(11)

PubMedID [29557083](#)