

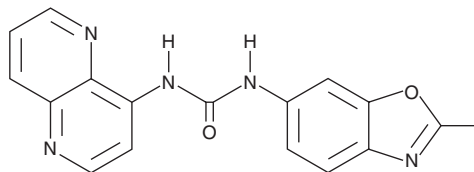
PRODUCT INFORMATION



SB-334867

Item No. 19145

CAS Registry No.: 792173-99-0
Formal Name: N-(2-methyl-6-benzoxazolyl)-N'-1,5-naphthyridin-4-yl-urea
MF: C₁₇H₁₃N₅O₂
FW: 319.3
Purity: ≥98%
UV/Vis.: λ_{max}: 242, 316 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SB-334867 is supplied as a crystalline solid. A stock solution may be made by dissolving the SB-334867 in the solvent of choice. SB-334867 is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of SB-334867 in these solvents is approximately 10 and 100 mM, respectively.

Description

SB-334867 is an antagonist of the orexin 1 receptor (OX1R; $K_B = 39.8$ nM) that is selective for OX1R over OX2R ($K_B = 1,995.3$ nM).¹ It reduces food intake and increases resting duration in rats, as well as inhibits orexin-A-induced increases in food intake, when administered at a dose of 30 mg/kg.² SB-334867 (10 mg/kg) inhibits orexin-A-induced increases in grooming time in rats.¹ It increases the seizure threshold in both the maximal electroshock seizure threshold (MEST) and 6 Hz psychomotor seizure test in mice when administered at doses of 30 and 3 mg/kg, respectively.³ Intracerebroventricular administration of SB-334867 (0.5-50 nmol) reduces morphine-induced analgesia in the formalin test in rats.⁴ SB-334867 (1.5 to 6 μg, intra-dentate gyrus injection) also reduces acquisition and consolidation of spatial memory in the Morris water maze in rats.⁵

References

1. Duxon, M.S., Stretton, J., Starr, K., *et al.* Evidence that orexin-A-evoked grooming in the rat is mediated by orexin-1 (OX1) receptors, with downstream 5-HT_{2C} receptor involvement. *Psychopharmacol. (Berl)*. **153**(2), 203-209 (2001).
2. Rodgers, R.J., Halford, J.C.G., Nones de Souza, R.L., *et al.* SB-334867, a selective orexin-1 receptor antagonist, enhances behavioural satiety and blocks the hyperphagic effect of orexin-A in rats. *Eur. J. Neurosci.* **13**(7), 1444-1452 (2001).
3. Socała, K., Szuster-Ciesielska, A., and Właż, P. SB 334867, a selective orexin receptor type 1 antagonist, elevates seizure threshold in mice. *Life Sci.* **150**, 81-88 (2016).
4. Azhdari-Zarmehri, H., Esmaeili, M.H., Sofiabadi, M., *et al.* Orexin receptor type-1 antagonist SB-334867 decreases morphine-induced antinociceptive effect in formalin test. *Pharmacol. Biochem. Behav.* **112**, 64-70 (2013).
5. Akbari, E., Naghdi, N., and Motamedi, F. The selective orexin 1 receptor antagonist SB-334867-A impairs acquisition and consolidation but not retrieval of spatial memory in Morris water maze. *Peptides* **28**(3), 650-656 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM