

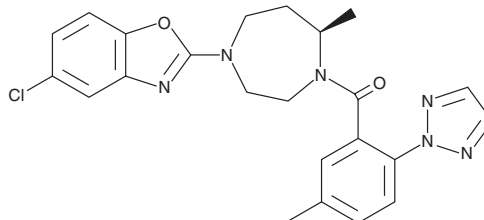
PRODUCT INFORMATION



Suvorexant

Item No. 9002140

CAS Registry No.: 1030377-33-3
Formal Name: [(7R)-4-(5-chloro-2-benzoxazolyl)hexahydro-7-methyl-1H-1,4-diazepin-1-yl][5-methyl-2-(2H-1,2,3-triazol-2-yl)phenyl]-methanone
Synonym: MK-4305
MF: C₂₃H₂₃ClN₆O₂
FW: 450.9
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 214, 254, 288 nm



Laboratory Procedures

For long term storage, we suggest that suvorexant be stored as supplied at -20°C. It should be stable for at least two years.

Suvorexant is supplied as a crystalline solid. A stock solution may be made by dissolving the suvorexant in the solvent of choice. Suvorexant is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of suvorexant in these solvents is approximately 0.3, 10, and 12 mg/ml, respectively.

Suvorexant is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, suvorexant should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Suvorexant has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Orexin receptors 1 (OX1R) and OX2R mediate the action of orexin A and orexin B, the neuropeptides that promote wakefulness. Suvorexant is a dual orexin receptor antagonist that blocks both OX1R and OX2R (K_is = 1.2 and 0.60 nM, respectively).¹ It reduces locomotor activity and promotes sleep in animal and clinical studies by inhibiting the binding of orexin A and B.^{2,3}

References

1. Winrow, C.J. and Renger, J.J. Discovery and development of orexin receptor antagonists as therapeutics for insomnia. *Br. J. Pharmacol.* **171**(2), 283-293 (2014).
2. Etori, K., Saito, Y.C., Tsujino, N., *et al.* Effects of a newly developed potent orexin-2 receptor-selective antagonist, compound 1 m, on sleep/wakefulness states in mice. *Front. Neurosci.* **8**, (2014).
3. Bennett, T., Bray, D., and Neville, M.W. Suvorexant, a dual orexin receptor antagonist for the management of insomnia. *P. T.* **39**(4), 264-266 (2014).

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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