

Product Data Sheet

Product Name: MK-1064

Cat. No.: GC19249

Chemical Properties

Cas. No. 1207253-08-4

SMILES O=C(C1=CC(C2=CC(Cl)=CN=C2)=CN=C1C3=NC=CC=C3)NCC4=NC(OC)=C(OC)C=C4

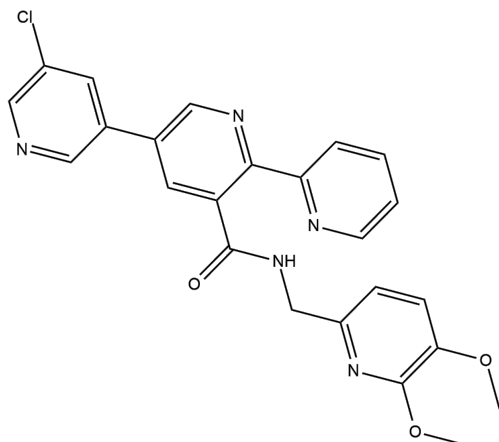
Formula $C_{24}H_{20}ClN_5O_3$ M.Wt 461.9

Solubility DMSO : 50 mg/mL (108.25 mM); Water : < 0.1 mg/mL (insoluble) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

MK-1064 is a selective orexin 2 receptor antagonist (2-SORA) for the research of insomnia. target: 2-SORA [1] In vivo: MK-1064 promotes sleep and increases both rapid eye movement (REM) and non-REM (NREM) sleep in rats at OX2R occupancies higher than the range observed for dual orexin receptor antagonists. MK-1064 increases NREM and REM sleep in dogs without inducing cataplexy. The reference for animal administration is 30 mg/kg. [2]

Caution: Product has not been fully validated for medical applications. For research use only.

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References:

- [1]. Roecker AJ et al. Discovery of 5''-chloro-N-[(5,6-dimethoxypyridin-2-yl)methyl]-2,2':5',3''-terpyridine-3'-carboxamide (MK-1064): a selective orexin 2 receptor antagonist (2-SORA) for the treatment of insomnia. *ChemMedChem*. 2014 Feb;9(2):311-22.
- [2]. Gotter AL et al. Orexin 2 Receptor Antagonism is Sufficient to Promote NREM and REM Sleep from Mouse to Man. *Sci Rep*. 2016 Jun 3;6:27147.

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