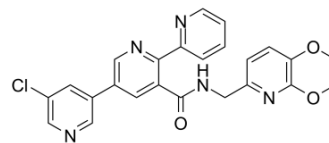


MK-1064

Cat. No.:	HY-19914		
CAS No.:	1207253-08-4		
Molecular Formula:	C ₂₄ H ₂₀ ClN ₅ O ₃		
Molecular Weight:	461.9		
Target:	Orexin Receptor (OX Receptor)		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (108.25 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.1650 mL	10.8249 mL	21.6497 mL
	5 mM	0.4330 mL	2.1650 mL	4.3299 mL
	10 mM	0.2165 mL	1.0825 mL	2.1650 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (5.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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]

CUSTOMER VALIDATION

- Neuropharmacology. 2018 Dec;143:79-94.

See more customer validations on www.MedChemExpress.com

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA