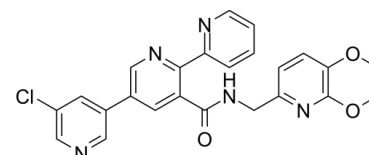


## Data Sheet

<b>Product Name:</b>	MK-1064
<b>Cat. No.:</b>	CS-5968
<b>CAS No.:</b>	1207253-08-4
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>20</sub> ClN <sub>5</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	461.90
<b>Target:</b>	Orexin Receptor (OX Receptor)
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Solubility:</b>	DMSO : 50 mg/mL (108.25 mM; Need ultrasonic); H <sub>2</sub> O : < 0.1 mg/mL (insoluble)



### BIOLOGICAL ACTIVITY:

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]

### 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.

### CAIndexNames:

[2,2':5',3''-Terpyridine]-3'-carboxamide, 5''-chloro-N-[(5,6-dimethoxy-2-pyridinyl)methyl]-

### SMILES:

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

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

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