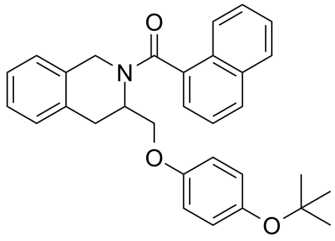
SR10067

Cat. No.:	HY-117516
CAS No.:	1380548-02-6
Molecular Formula:	$C_{31}H_{31}NO_3$
Molecular Weight:	465.58
Target:	REV-ERB
Pathway:	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
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 : 100 mg/mL (214.79 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1479 mL	10.7393 mL	21.4786 mL
	5 mM	0.4296 mL	2.1479 mL	4.2957 mL
	10 mM	0.2148 mL	1.0739 mL	2.1479 mL

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

BIOLOGICAL ACTIVITY

Description

SR10067 is a potent, selective and brain penetrant REV-ERB agonist. SR10067 has high affinity for Rev-Erbβ and Rev-Erbα with IC_{50} values of 160 nM and 170 nM, respectively. SR10067 can be used for the research of metabolic diseases and neuropsychiatric disorders[1][2].

IC_{50} & Target

IC50: 160 nM (Rev-Erbβ); 170 nM (Rev-Erbα)[1]

In Vitro

SR10067 has high affinity for Rev-Erbβ and Rev-Erbαwith IC_{50} values are 160 and 170 nM, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

SR10067 (i.p.; 30 mg/kg) has good pharmacokinetic properties in mouse[1].

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Animal Model:	Mice[1]

Dosage:	30 mg/kg
Administration:	i.p.
Result:	Remained above the IC_{50} of the receptor in plasma and brain concentrations. Suppressed the circadian rhythm of Npas2 gene expression in the mouse hypothalamus in a single injection and had a dose-dependent effect on reduction in nocturnal wheel running activity. Induced wakefulness and reduced SWS and REM sleep and displayed high anxiolytic activity.

REFERENCES

[1]. Banerjee S, et al. Pharmacological targeting of the mammalian clock regulates sleep architecture and emotional behaviour. Nat Commun. 2014 Dec 23;5:5759. doi: 10.1038/ncomms6759.

[2]. Thevis M, et al. Emerging drugs affecting skeletal muscle function and mitochondrial biogenesis - Potential implications for sports drug testing programs. Rapid Commun Mass Spectrom. 2016 Mar 15;30(5):635-51.

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