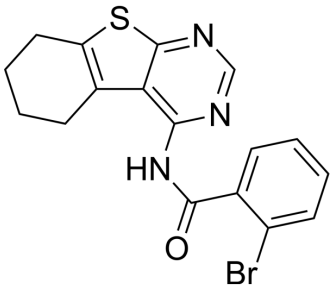
KL201

Cat. No.:	HY-134194
CAS No.:	302939-48-6
Molecular Formula:	$C_{17}H_{14}BrN_3OS$
Molecular Weight:	388.28
Target:	Cryptochrome
Pathway:	Metabolic Enzyme/Protease
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 : 250 mg/mL (643.87 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5755 mL	12.8773 mL	25.7546 mL
	5 mM	0.5151 mL	2.5755 mL	5.1509 mL
	10 mM	0.2575 mL	1.2877 mL	2.5755 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.36 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

KL201 a circadian clock modulator, is a isoform-selective cryptochrome 1 (CRY1) stabilizer. KL201 has no stabilizing effect on CRY2. KL201 lengthens the period of circadian rhythms in cells and tissues[1].

In Vitro

KL201 causes dose-dependent lengthening of circadian period in Bmal1-dLuc reporter cells, and in cells with another circadian reporter Per2-dLuc. KL201 suppresses the intensity of Per2-dLuc reporter much more than that of Bmal1-dLuc, without affecting cellular viability[1].

KL201 binds to CRY1 in overlap with FBXL3, a subunit of ubiquitin ligase complex, and the effect of KL201 is blunted by knockdown of FBXL3[1].

KL201 lengthened circadian period and suppressed the intensity of Per2::Luc knockin reporter in mouse lung primary explants[1].

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

REFERENCES

[1]. Simon Miller, et al. An Isoform-Selective Modulator of Cryptochrome 1 Regulates Circadian Rhythms in Mammals. Cell Chem Biol. 2020 Sep 17;27(9):1192-1198.e5.

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