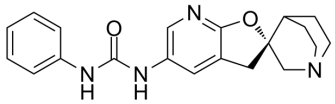
R-PSOP

Cat. No.:	HY-145086
CAS No.:	1185189-97-2
Molecular Formula:	$C_{20}H_{22}N_4O_2$
Molecular Weight:	350.41
Target:	Others
Pathway:	Others

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 (285.38 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8538 mL	14.2690 mL	28.5380 mL
	5 mM	0.5708 mL	2.8538 mL	5.7076 mL
	10 mM	0.2854 mL	1.4269 mL	2.8538 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: ≥ 1.25 mg/mL (3.57 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (3.57 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (3.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

R-PSOP is highly potent and selective nonpeptidic NMUR2 antagonist. R-PSOP binds to NMUR2 with the K_is of 52 and 32 nM for the human and rat NMUR2, respectively. R-PSOP shows moderate CNS penetration. R-PSOP can be used for the research of the eating disorders, obesity, pain, and stress-related disorders[1].

In Vitro

From Schild analyses, the functional K_b values for R-PSOP are 92 and 155 nM at human and rat NMUR2, respectively (the effects of R-PSOP on the intracellular calcium mobilization response induced by NMU-25 in HEK293 cells expressing human or rat NMUR2)[1].

	R-PSOP strongly inhibits the responses stimulated by peptide agonists NMU-25, NMU-23, and NMU-8 in human embryonic kidney 293 cells expressing NMUR2[1]. In functional assays measuring phosphoinositide turnover or intracellular calcium mobilization, R-PSOP strongly inhibits the responses stimulated by peptide agonists NMU-25, NMU-23, and NMU-8 in human embryonic kidney 293 cells expressing NMUR2[1]. R-PSOP concentration-dependently inhibits the phosphoinositide (PI) turnover turnover response in human NMUR2-expressing cells stimulated by 10 nM NMU-25 (EC_{50} of 5 nM). The IC_{50} value is determined to be 86 nM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	R-PSOP (10 μL 50 nmol; intrathecal injection; male Sprague-Dawley rats) attenuates NMU-23-evoked nociceptive responses in a rat spinal reflex preparation[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Liu JJ, et al. Discovery and pharmacological characterization of a small-molecule antagonist at neuromedin U receptor NMUR2. J Pharmacol Exp Ther. 2009;330(1):268-275.

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