SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Pirenzepine

Cat. No.: HY-17037A

CAS No.: 28797-61-7

Molecular Formula: $C_{19}H_{21}N_5O_2$

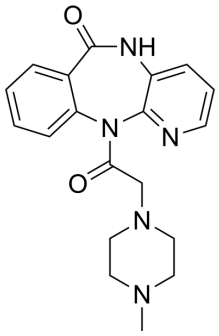
Molecular Weight: 351.4

Target: mAChR

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 : 100 mg/mL (284.58 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8458 mL	14.2288 mL	28.4576 mL
	5 mM	0.5692 mL	2.8458 mL	5.6915 mL
	10 mM	0.2846 mL	1.4229 mL	2.8458 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: ≥ 5 mg/mL (14.23 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (14.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pirenzepine (LS 519 free base) is a selective M1 mAChR (muscarinic acetylcholine receptor) antagonist. Pirenzepine reduces gastric acid secretion and reduces muscle spasm, can be used in peptic ulcers research. Pirenzepine shows anti-proliferative activity to cancer cells[1][2].

In Vitro

Pirenzepine (100-140 μg/mL; 24 h) inhibits PC-3 cell proliferation activity[2].
Pirenzepine (110 μg/mL; 24 h) inhibits prostate and lung cancer cell migration[2].
Pirenzepine (100-130 μg/mL; 0-24 h) inhibits the expression of GLI1 in PC-3 cells[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[2]

Cell Line:	PC-3 cells
Concentration:	100-140 μg/mL
Incubation Time:	24 hours
Result:	Inhibited PC-3 cell proliferation in a concentration-dependent manner.

Cell Migration Assay [2]

Cell Line:	PC-3 and A549 cells
Concentration:	110 μg/mL
Incubation Time:	24 hours
Result:	Inhibited the migration of PC-3 and A549 cell lines (P=0.014).

Western Blot Analysis[2]

Cell Line:	PC-3 cells
Concentration:	110 μg/mL
Incubation Time:	0-24 hours
Result:	Inhibited the expression of GLI1 and PTCH1.

RT-PCR[2]

Cell Line:	PC-3 cell
Concentration:	100-130 μg/mL
Incubation Time:	24 hours
Result:	Suppressed GLI1 mRNA expression in PC-3 cells. Increased PTCH1 mRNA level but not reach statistical significance. Showed no SHH mRNA expression level change.

In Vivo

Pirenzepine (intraperitoneal injection; 0.3 mg/kg; once) treatment shows beneficial effects in lipopolysaccharide-induced septic shock[3].

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

Animal Model:	Male C57BL/6 mice with experimental endotoxemia[3]
Dosage:	0.3 mg/kg
Administration:	Intraperitoneal injection; 0.3 mg/kg; once
Result:	Improved survival rate of LPS-induced septic shock. Relieved LPS-induced pulmonary and hepatic injury. Reduced the expression of SOCS3 at mRNA level.

CUSTOMER VALIDATION

- Research Square Preprint. 2021 Jan.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Carmine AA, et al. Pirenzepine. A review of its pharmacodynamic and pharmacokinetic properties and therapeutic efficacy in peptic ulcer disease and other allied diseases. Drugs. 1985 Aug;30(2):85-126.

[2]. Yin QQ, et al. Muscarinic acetylcholine receptor M1 mediates prostate cancer cell migration and invasion through hedgehog signaling. Asian J Androl. 2018 Nov-Dec;20(6):608-614.

[3]. Yabuki Y, et al. The T-type calcium channel enhancer SAK3 inhibits neuronal death following transient brain ischemia via nicotinic acetylcholine receptor stimulation. Neurochem Int. 2017 Sep;108:272-281.

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