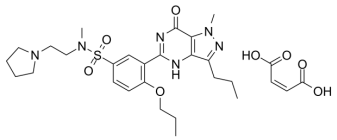
TPN729MA

Cat. No.:	HY-116808B
CAS No.:	1422955-52-9
Molecular Formula:	$C_{29}H_{40}N_6O_8S$
Molecular Weight:	632.73
Target:	Phosphodiesterase (PDE)
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (39.51 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.5805 mL	7.9023 mL	15.8045 mL
	5 mM	0.3161 mL	1.5805 mL	3.1609 mL
	10 mM	0.1580 mL	0.7902 mL	1.5805 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: ≥ 2.5 mg/mL (3.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.95 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TPN729MA (TPN729 maleate) is a selective phosphodiesterase type 5 (PDE5) inhibitor with an IC_{50} value of 2.28 nM. TPN729MA affects erectile function and it can be used for the research of erectile dysfunction[1].

IC_{50} & Target

PDE5	PDE6	PDE1	PDE4
2.28 nM (IC_{50})	45.2 nM (IC_{50})	566 nM (IC_{50})	834 nM (IC_{50})

PDE11
6090 nM (IC_{50})

In Vivo

TPN729MA (1.25, 2.5 and 5.0 mg/kg; intraduodenal injection, once) increases intracavernous pressure/blood pressure (ICP/BP) with the dose of 5.0 mg/kg at all time points and with the dose of 2.5 mg/kg at 75, 90, 105, and 120 minutes time points[1].

TPN729MA (5.0 μg/kg, i.v., once) significantly increases ICP and ICP/BP of male Beagle dogs[1].

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

Animal Model:	Male Sprague-Dawley rats with corpora cavernosa complete exposure[1]
Dosage:	1.25, 2.5 and 5.0 mg/kg
Administration:	Intraduodenal (i.d.) injection; 1.25, 2.5 and 5.0 mg/kg, once
Result:	Dose-dependently increased the maximum intracavernous pressure (ICP) and ICP/blood pressure (BP).

REFERENCES

[1]. Wang Z, et al. The selectivity and potency of the new PDE5 inhibitor TPN729MA. J Sex Med. 2013 Nov;10(11):2790-7.

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