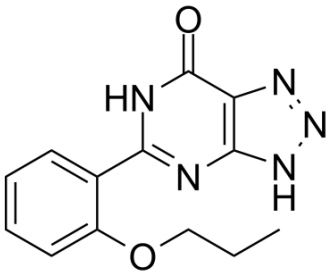
Zaprinast

Cat. No.:	HY-B1816
CAS No.:	37762-06-4
Molecular Formula:	$C_{13}H_{13}N_5O_2$
Molecular Weight:	271.27
Target:	Phosphodiesterase (PDE)
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (230.40 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.6864 mL	18.4318 mL	36.8636 mL
	5 mM	0.7373 mL	3.6864 mL	7.3727 mL
	10 mM	0.3686 mL	1.8432 mL	3.6864 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: ≥ 2.08 mg/mL (7.67 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.67 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Zaprinast (M&B 22948) is an inhibitor of cGMP-selective Phosphodiesterases(PDEs)[1]. Zaprinast is a G protein-coupled receptor (GPR) 35 agonist which activates rat GPR35 strongly and activates human GPR35 moderately[2]. Zaprinast reduces vessel remodeling through antiproliferative and proapoptotic effects[3].

IC_{50} & Target

PDE[1], GPR35[2]

REFERENCES

[1]. Choi SH , et al. Zaprinast, an inhibitor of cGMP-selective phosphodiesterases, enhances the secretion of TNF-alpha and IL-1beta and the expression of iNOS and MHC class II molecules in rat microglial cells. J Neurosci Res. 2002 Feb 1;67(3):411-21.

[2]. Taniguchi Y, et al. Zaprinast, a well-known cyclic guanosine monophosphate-specific phosphodiesterase inhibitor, is an agonist for GPR35. FEBS Lett. 2006 Sep 18;580(21):5003-8. Epub 2006 Aug 17.

[3]. Keswani AN , et al The cyclic GMP modulators YC-1 and zaprinast reduce vessel remodeling through antiproliferative and proapoptotic effects. J Cardiovasc Pharmacol Ther. 2009 Jun;14(2):116-24.

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