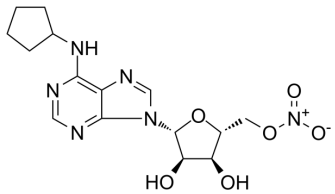
Trabodenoson

Cat. No.:	HY-106007
CAS No.:	871108-05-3
Molecular Formula:	$C_{15}H_{20}N_6O_6$
Molecular Weight:	380.36
Target:	Adenosine Receptor
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (328.64 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6291 mL	13.1454 mL	26.2909 mL
	5 mM	0.5258 mL	2.6291 mL	5.2582 mL
	10 mM	0.2629 mL	1.3145 mL	2.6291 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 (5.47 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.47 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Trabodenoson (INO-8875), an adenosine mimetic, is a highly selective Adenosine A1 receptor agonist. Trabodenoson (INO-8875) is used in the study for Primary Open-Angle Glaucoma[1].

In Vitro

Trabodenoson treatment significantly increaseS MMP-2 activity and MMP-14 abundance, while decreasing fibronectin and collagen IV expression[1].

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

In Vivo

Trabodenoson (6.0%), demonstrating an average IOP drop of 2.45 ± 0.38 mm Hg in young mice over 7 days (downregulation) [1].

Topical trabodenoson significantly upregulates nestin expression in the ONH of induced eyes compared with vehicle-treated no-induced eyes[2].

Trabodenoson-treated eyes have significantly reduced optic nerve (ON) edema compared with vehicle-treated eyes. RGC counts are higher in Trabodenoson-treated eyes compared to vehicle (74% versus 47% of the contralateral eye)[2].

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

Animal Model:	Young (3-4 months old) and aged (12 months old)[1].
Dosage:	3% or 6% in 10 μL.
Administration:	Eye drop for 7 consecutive days.
Result:	Decreased IOP.

Animal Model:	Rats[2].
Dosage:	3%.
Administration:	Topical delivery daily.
Result:	Had significantly reduced optic nerve (ON) edema.

REFERENCES

[1]. Guorong Li, et al. Trabodenoson, an Adenosine Mimetic With A1 Receptor Selectivity Lowers Intraocular Pressure by Increasing Conventional Outflow Facility in Mice. Invest Ophthalmol Vis Sci. 2018 Jan 1;59(1):383-392.

[2]. Yan Guo, et al. Topical Trabodenoson Is Neuroprotective in a Rodent Model of Anterior Ischemic Optic Neuropathy (rNAION). Transl Vis Sci Technol. 2019 Dec 20;8(6):47.

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