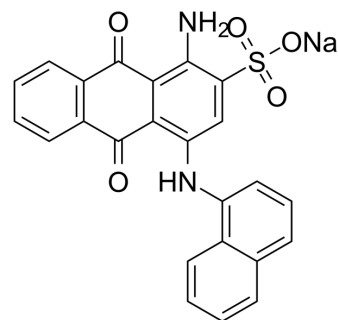


PSB-06126

Cat. No.:	HY-103263		
CAS No.:	1052089-16-3		
Molecular Formula:	C ₂₄ H ₁₅ N ₂ NaO ₅ S		
Molecular Weight:	466.44		
Target:	Phosphatase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (267.99 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mM	2.1439 mL	10.7195 mL
5 mM		0.4288 mL	2.1439 mL	4.2878 mL	
10 mM		0.2144 mL	1.0719 mL	2.1439 mL	

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PSB-06126 is a selective nucleoside triphosphate diphosphohydrolase (NTPDase) inhibitor, with the K_i values of 0.33 μM for rat NTPDase 1, 19.1 μM for NTPDase 2 and 2.22 μM for NTPDase 3, respectively. PSB-06126 acts on human NTPDase 3 with an IC₅₀ value of 7.76 μM and a K_i value of 4.39 μM^{[1][2]}.

IC₅₀ & Target

Ki: 0.33 μM (rat NTPDase 1), 19.1 μM (rat NTPDase 2), 2.22 μM (rat NTPDase 3) 4.39 μM (human NTPDase 3)^{[1][2]}.

In Vitro

PSB 06126 (3 μM) blocks NTPDase3 overexpressed in mesenchymal stem cells (MSCs), leading to increased extracellular ATP levels and osteogenic differentiation and mineralisation of MSCs through activation of P2X7 and P2Y6 receptors^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Younis Baqi, et al. Ecto-nucleotidase inhibitors: recent developments in drug discovery. *Mini Rev Med Chem*. 2015;15(1):21-33.
- [2]. Amelie Fiene, et al. Fluorescence polarization immunoassays for monitoring nucleoside triphosphate diphosphohydrolase (NTPDase) activity. *Analyst*. 2015 Jan 7;140(1):140-8.
- [3]. J B Noronha-Matos, et al. Mesenchymal Stem Cells Ageing: Targeting the "Purinome" to Promote Osteogenic Differentiation and Bone Repair. *J Cell Physiol*. 2016 Sep;231(9):1852-61.
-

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