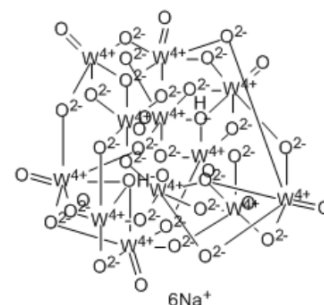


POM1

Cat. No.:	HY-103259		
CAS No.:	12141-67-2		
Molecular Formula:	H ₂ Na ₆ O ₄₀ W ₁₂		
Molecular Weight:	2986.01		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (16.74 mM; Need ultrasonic)
 DMSO : 50 mg/mL (16.74 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		0.3349 mL	1.6745 mL	3.3490 mL
	5 mM		0.0670 mL	0.3349 mL	0.6698 mL
	10 mM		0.0335 mL	0.1674 mL	0.3349 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: ≥ 2.5 mg/mL (0.84 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
 Solubility: ≥ 2.5 mg/mL (0.84 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**
 Solubility: ≥ 2.5 mg/mL (0.84 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

POM1 is a potent **ecto-nucleoside triphosphate diphosphohydrolase (NTPDase)** inhibitor, with K_i values of 2.58 μM, 3.26 μM, and 28.8 μM for NTPDase 1, NTPDase 3 and NTPDase 2 respectively^[1]. POM1 inhibits ATP breakdown but also blocks central synaptic transmission, an action independent of NTPDase inhibition^[2].

IC₅₀ & Target

Ki: 2.58 μM (NTPDase 1), 3.26 μM (NTPDase 3), 28.8 μM (NTPDase 2)^[1].

REFERENCES

- [1]. Müller CE, et al. Polyoxometalates--a new class of potent ecto-nucleoside triphosphate diphosphohydrolase (NTPDase) inhibitors. *Bioorg Med Chem Lett*. 2006 Dec 1;16(23):5943-7.
- [2]. Wall et al. The novel NTPDase inhibitor sodium polyoxotungstate (POM-1) inhibits ATP breakdown but also blocks central synaptic transmission, an action independent of NTPDase inhibition. *Neuropharmacology*. 2008 Dec;55(7):1251-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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