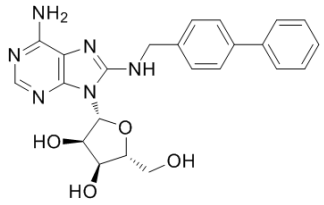
CNT2 inhibitor-1

Cat. No.:	HY-112843		
CAS No.:	880155-70-4		
Molecular Formula:	$C_{23}H_{24}N_6O_4$		
Molecular Weight:	448.47		
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

DMSO : 75 mg/mL (167.24 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2298 mL	11.1490 mL	22.2980 mL
	5 mM	0.4460 mL	2.2298 mL	4.4596 mL
	10 mM	0.2230 mL	1.1149 mL	2.2298 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 (5.57 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
   Solubility: ≥ 2.5 mg/mL (5.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CNT2 inhibitor-1 is a potent concentrative nucleoside transporter 2 Inhibitor **(CNT2)**, with an **IC_{50}** of 640 nM for hCNT2.

IC_{50} & Target

IC50: 640 nM (hCNT2)[1][2].

In Vitro

CNT2 inhibitor-1 (compound 48) exhibits 81-fold more potent inhibitory activity than the parent compound 12. In addition, CNT2 inhibitor-1 exhibits inhibitory activity 1500-fold more potent than that of 2′-deoxy-5-fluorouridine, phlorizin, and 7,8,3′-trihydroxyflavone, which are well-known hCNT2 inhibitors[1]. CNT2 inhibitor-1 (compound 1) is a potent inhibitor with poor solubility[2].

REFERENCES

[1]. Tatani K, et al. Identification of 8-aminoadenosine derivatives as a new class of human concentrative nucleoside transporter 2 inhibitors. ACS Med Chem Lett. 2015 Jan 28;6(3):244-8.

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