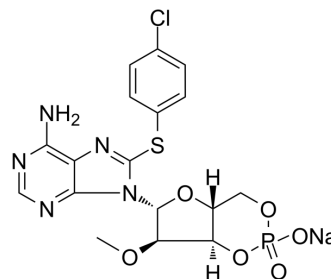


8-CPT-2Me-cAMP sodium

Cat. No.:	HY-107543
CAS No.:	634207-53-7
Molecular Formula:	C ₁₇ H ₁₆ ClN ₅ NaO ₆ PS
Molecular Weight:	507.82
Target:	Ras
Pathway:	GPCR/G Protein
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (246.15 mM; ultrasonic and warming and heat to 60°C)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	1.9692 mL	9.8460 mL	19.6920 mL
				5 mM	0.3938 mL	1.9692 mL	3.9384 mL
10 mM				0.1969 mL	0.9846 mL	1.9692 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 (4.10 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.10 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	8-CPT-2Me-cAMP sodium is a selective activator of exchange proteins activated by cAMP (Epac), the cAMP sensitive guanine nucleotide exchange factors (GEFs) for the small GTPases Rap1 and Rap2. 8-CPT-2Me-cAMP sodium activates Epac1 (EC ₅₀ = 2.2 μM), but not PKA (EC ₅₀ > 10 μM) ^[1] . 8-CPT-2Me-cAMP sodium stimulates Epac-mediated Ca ²⁺ release in pancreatic β-cells in vitro ^[2] .
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REFERENCES

[1]. Enserink JM, Christensen AE, de Rooij J, van Triest M, Schwede F, Genieser HG, Døskeland SO, Blank JL, Bos JL. A novel Epac-specific cAMP analogue demonstrates independent regulation of Rap1 and ERK. Nat Cell Biol. 2002 Nov;4(11):901-6.

[2]. Kang G, Joseph JW, Chepurny OG, Monaco M, Wheeler MB, Bos JL, Schwede F, Genieser HG, Holz GG. Epac-selective cAMP analog 8-pCPT-2'-O-Me-cAMP as a stimulus for Ca²⁺-induced Ca²⁺ release and exocytosis in pancreatic beta-cells. J Biol Chem. 2003 Mar 7;278(

Caution: Product has not been fully validated for medical applications. For research use only.

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