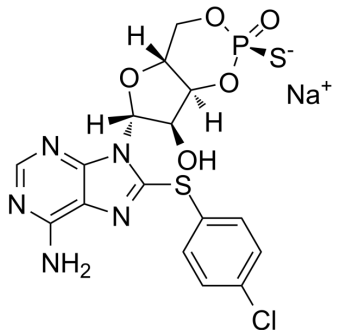
Rp-8-CPT-cAMPS sodium

Cat. No.:	HY-120994
CAS No.:	221905-35-7
Molecular Formula:	$C_{16}H_{14}ClN_5NaO_5PS_2$
Molecular Weight:	509.86
Target:	PKA
Pathway:	Stem Cell/Wnt; TGF-beta/Smad
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

DMF : 30 mg/mL (58.84 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9613 mL	9.8066 mL	19.6132 mL
	5 mM	0.3923 mL	1.9613 mL	3.9226 mL
	10 mM	0.1961 mL	0.9807 mL	1.9613 mL

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

BIOLOGICAL ACTIVITY

Description

Rp-8-CPT-cAMPS sodium, a cAMP analog, is a potent and competitive antagonist of cAMP-induced activation of cAMP-dependent PKA I and II. Rp-8-CPT-cAMPS sodium preferentially selects site A of RI compares to site A of RII and site B of RII compares to site B of RI[1][2].

IC_{50} & Target

PKA[1]

In Vitro

Rp-8-CPT-cAMPS (100 μM; 15 min) blocks phosphorylation of VASP by 6-Bnz-cAMP and largely reduces VASP phosphorylation by forskolin and fenoterol[2].

Rp-8-CPT-cAMPS (100 μM; 30 min) reduces GTP-loading of Rap1 by both 8-pCPT-2'-O-Me-cAMP and 6-Bnz-cAMP[2].

Rp-8-CPT-cAMPS (100 μM; 30 min) largely diminishes the augmentation of bradykinin-induced IL-8 release by the PKA activator 6-Bnz-cAMP and the Epac activator 8-pCPT-2'-O-Me-cAMP[2].

Rp-8-CPT-cAMPS (10 μM) inhibits the endothelium-dependent and -independent relaxation which induced by Venom in pre-contracted rat mesenteric artery rings[3].

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

REFERENCES

[1]. Dostmann WR , et, al. Probing the cyclic nucleotide binding sites of cAMP-dependent protein kinases I and II with analogs of adenosine 3',5'-cyclic phosphorothioates. J Biol Chem. 1990 Jun 25;265(18):10484-91.

[2]. Roscioni SS, et, al. PKA and Epac cooperate to augment bradykinin-induced interleukin-8 release from human airway smooth muscle cells. Respir Res. 2009 Sep 29;10(1):88.

[3]. Chaisakul J, et, al. In vivo and in vitro cardiovascular effects of Papuan taipan (Oxyuranus scutellatus) venom: Exploring "sudden collapse". Toxicol Lett. 2012 Sep 3;213(2):243-8.

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