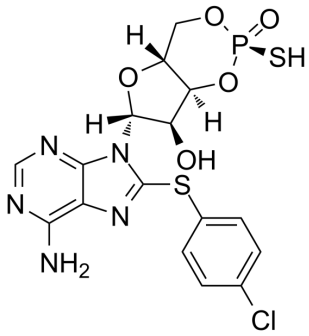
Rp-8-CPT-cAMPS

Cat. No.:	HY-120994A
CAS No.:	129735-01-9
Molecular Formula:	$C_{16}H_{15}ClN_5O_5PS_2$
Molecular Weight:	487.88
Target:	PKA
Pathway:	Protein Tyrosine Kinase/RTK; Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Rp-8-CPT-cAMPS, a cAMP analog, is a potent and competitive antagonist of cAMP-induced activation of cAMP-dependent PKA I and II. Rp-8-CPT-cAMPS 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.

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