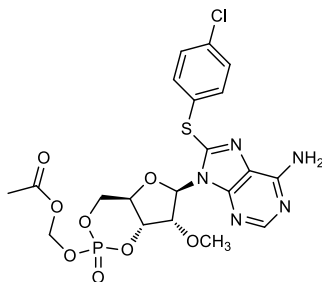


Catalog # 10-2736
8-pCPT-2'-O-Me-cAMP-AM

1152197-23-3

8-(4-Chlorophenylthio)-2'-O-methyladenosine-3',5'-cyclic monophosphate, acetoxymethyl ester

Lot # X105409



A potent, cell-permeable Epac (exchange protein directly activated by cAMP) activator¹. Induces RAP1 activation and insulin secretion in pancreatic beta cell lines²⁻⁵. Induces vascular relaxation in rat mesenteric artery⁶. The acetoxymethyl ester confers increased cell-permeability and is cleaved by endogenous esterases to yield the active compound, 8-pCPT-2'-O-Me-cAMP. Addition to cell cultures should be done in serum-free media as esterases in serum will cleave the acetoxymethyl ester and reduce cell permeability.

- 1) Vliem *et al.* (2008), *8-pCPT-2'-O-Me-cAMP-AM: an improved Epac-selective cAMP analogue*; Chem. Biochem., **9** 2052
- 2) Chepurny *et al.* (2009), *Enhanced Rap1 activation and insulin secretagogue properties of an acetoxymethyl ester of an Epac-selective cyclic AMP analog in rat INS-1 cells: studies with 8-pCPT-2'-O-Me-cAMP-AM*; J. Biol. Chem., **284** 10728
- 3) Kelley *et al.* (2009), *Glucose-dependent potentiation of mouse islet insulin secretion by Epac activator 8-pCPT-2'-O-Me-cAMP-AM*; Islets, **1** 260
- 4) Chepurny *et al.* (2010), *PKA-dependent potentiation of glucose-stimulated insulin secretion by Epac activator 8-pCPT-2'-O-Me-cAMP-AM in human islets of Langerhans*; Am. J. Physiol. Endocrinol. Metab., **298** E622
- 5) Dzhura *et al.* (2011), *Phospholipase C-ε links EPAC2 activation to the potentiation of glucose stimulated insulin secretion from moused islets of Langerhans*; Islets, **3** 121
- 6) Roberts *et al.* (2013), *Exchange protein activated by cAMP (Epac) induces vascular relaxation by activating Ca²⁺-sensitive K⁺ channels in rat mesenteric artery*; J. Physiol., **591** 5107

PHYSICAL DATA

Molecular Weight:	557.91
Molecular Formula:	C ₂₀ H ₂₁ ClN ₅ O ₈ PS
Purity:	97% by HPLC
Solubility:	DMSO (up to 50 mg/ml). Poorly soluble in aqueous solutions.
Physical Description:	Solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.