8-pCPT-2′-O-Me-cAMP-AM

Metabolically activatable, highly membrane-permeant Epac agonist

The acetoxymethyl group of 8-pCPT-2'-O-Me-cAMP-AM masks the charged polar phosphate and thus makes the molecule highly membrane-permeant. Inside the cell esterases release the more polar 8-pCPT-2'-O-Me-cAMP (Prod. No. BLG-C041), which is a potent and specific agonist of exchange factors directly activated by cAMP (Epac or cAMP-GEF), a newly discovered receptor for cyclic AMP.
Since a free 2'-ribose hydroxyl group in cyclic AMP is essential for stimulation of cAMP-dependent protein kinase (PKA), the methylated structure of 8-pCPT-2'-O-Me-cAMP is an extremely poor PKA activator and allows for specific discrimination between both signalling pathways.

BLG-C051-05 (5 x 1 µmol pack size) is not sold in the U.S. or Canada. Please contact us for available options.

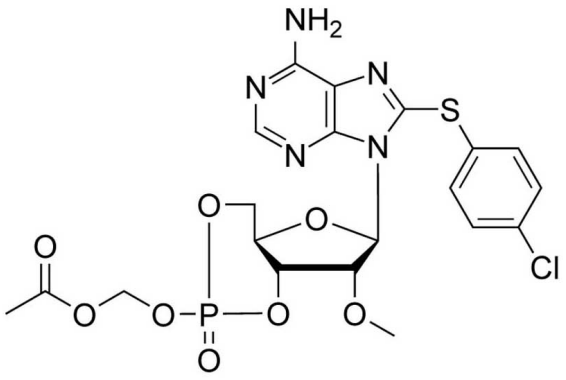
Ordering Information

Order Online »

BLG-C051-01	1µmol
BLG-C051-05	5x1µmol

Manuals, SDS & CofA

View Online »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Handling & Storage

Use/Stability	8-pCPT-2'-O-Me-cAMP-AM is rather labile in aqueous solution. Therefore, aqueous solutions should be freshly prepared immediately before use. Stock solutions in anhydrous DMSO or DMF should be relatively stable when stored frozen at -20°C to -80°C.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	8-(4-Chlorophenylthio)-2′-O-methyladenosine-3′,5′-cyclic monophosphate, acetoxymethyl ester
CAS	1152197-23-3
Couple Type	Activator, Modified nucleotides
Formula	$C_{20}H_{21}ClN_5O_8PS$
MW	557.9
Purity	> 97% HPLC for mixture of isomers
Quantity	1µmol=~0.6mg
Solubility	Due to its rather high lipophilicity, the solubility of 8-pCPT-2'-O-Me-cAMP-AM in water or buffers is limited. We suggest to use a small amount of anhydrous organic solvent such as anhydrous DMSO or DMF for preparation of 1-100mM stock solutions, and to dilute with water or buffer down to the concentrations required. In some cases, especially at high concentrations (~ 1mM), Pluronic® F-127 (Molecular Probes) can be useful to facilitate solubilization in water or physiological media. Please keep in mind that due to the high potency of 8-pCPT-2'-O-Me-cAMP-AM relatively low concentrations (1nM – 100µM) should be sufficient, and be sure to check for DMSO/DMF tolerance in your system. Since 8-pCPT-2'-O-Me-cAMP-AM is bioactivated by esterases, application to cell cultures should be performed without serum supplements (even heat-inactivated serum still contains active esterases!) in the media for at least 15 minutes. Otherwise, serum esterases may strongly reduce the cell-loading efficacy. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.
Technical Info / Product Notes	For the Original Manufacturer's data sheet please click here.