8-Br-2′-O-Me-cAMP-AM

Metabolically activatable Epac agonist

The acetoxymethyl group of 8-Br-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-Br-2'-O-Me-cAMP (Prod. No. BLG-B022), 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-Br-2'-O-Me-cAMP-AM is an extremely poor PKA activator and allows for specific discrimination between both signalling pathways. Phosphate tris(acetoxymethyl)ester, PO4-AM3 (Prod. No. BLG-P030), is recommended as control reagent in 8-Br-2'-O-Me-cAMP-AM applications to test for side effects of enzymatically released acetic acid and formaldehyde, two metabolites with potential biological functions.

BLG-B028-05 (5 x 1 µmol pack size) is not sold in the U.S. or Canada. Please contact us for available options.

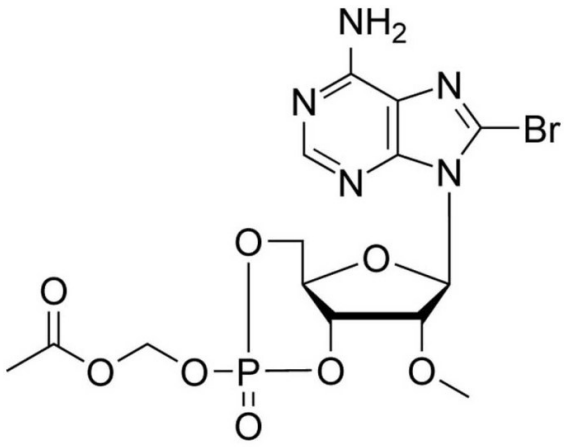
Ordering Information

Order Online »

BLG-B028-01	1µmol
BLG-B028-05	5x1µmol

Manuals, SDS & CofA

View Online »

Handling & Storage

Use/Stability 8-Br-2′-O-Me-cAMP-AM is slowly hydrolized in water or buffer to yield 8-Br-2′-O-Me-cAMP (approx. 15%/day at RT). Therefore solutions should be only freshly prepared immediately before use. Stock solutions in dry DMSO should be relatively stable when stored refrigerated.

Long Term Storage -20°C

Shipping Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name 8-Bromo-2′-O-methyladenosine-3′,5′-cyclic monophosphate . acetoxymethyl ester

Couple Type Modified nucleotides

Formula $C_{14}H_{17}BrN_5O_8P$

MW 494.2

Purity > 97% HPLC for mixture of isomers

Quantity 1µmol=~0.5mg

Solubility 8-Br-2'-O-Me-cAMP-AM is rather insoluble in water or buffers (<1mM). For a stock solution we suggest to dissolve in a small volume of dry dimethylsulfoxide (DMSO) and to dilute aliquots with water up to the concentration needed. Please keep in mind that due to the high potency of this reagent relatively low concentrations (0.005-0.1mM) should be sufficient, and be sure to check for DMSO/DMF tolerance in your system. Since 8-Br-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 (and cap if necessary) carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.Please do not use ethanol or other potentially reactive solvents.

Technical Info / Product Notes For the Original Manufacturer's data sheet please click here.

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