

Product Information

8-BROMOADENOSINE 3':5'-CYCLIC MONOPHOSPHATE SODIUM

Sigma Prod. No. B7880

CAS NUMBER: 76939-46-3

SYNONYMS: 8-Bromo-cAMP, 8-Br-A-3:5-MP

PHYSICAL DESCRIPTION:

Appearance: lyophilized, white powder

Molecular formula: $C_{10}H_{10}BrN_5O_6PNa$

Formula Weight: 430.1 (anhydrous)

(Actual MW will vary with water content)

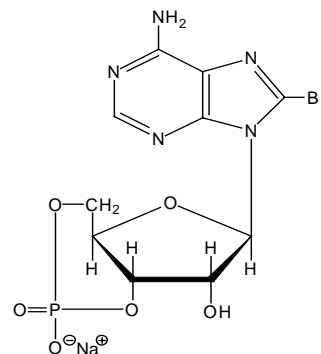
Absorbance max: 263 nm in 0.1N HCl

$E_{mM}(263_{nm}) = 16.4$ (0.1 N HCl)

$A_{250}/A_{260} = 0.68$

$A_{280}/A_{260} = 0.44$

$A_{290}/A_{260} = 0.11$



DESCRIPTION:

8-Bromoadenosine 3':5'-Cyclic Monophosphate is a brominated cyclic mononucleotide that is prepared synthetically.¹

STORAGE:

8-Br-cAMP as supplied is sensitive to light and moisture. It is recommended to store this product at less than 0°C and in dark. If stored as recommended, it will have a shelf-life of up to 3 years.

SOLUBILITY / SOLUTION STABILITY:

This product is very soluble in water. Sigma routinely test its solubility in water at a concentration of 100 mg/mL yielding a clear, colorless solution.

The solution should be stored at -20°C, protected from light and will be stable for up to 6 months.

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Sigma Prod. No. B7880, Fluka 16135, Aldrich 858463

APPLICATIONS:

Progesterone receptor (PR) in the chicken oviduct is a phosphoprotein that regulates gene transcription in the presence of progesterone. 8-Br-cAMP has been used in place of progesterone to stimulate phosphorylation of the PR which participates in the regulation of PR-mediated transcription. It appears that the 8-Br-cAMP mimics progesterone-dependent, receptor-mediated transcription in the absence of progesterone. It suggests that phosphorylation of the PR or other proteins in the transcription complex can modulate PR-mediated transcriptions in vivo.^{2,3,4}

8-Br-cAMP and other analogs of cyclic or non-cyclic AMP are used to inhibit the growth of cultured cell lines.⁵

REFERENCES:

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3. Denner, L. et al., *J. Biol. Chem.*, 265(27), 16548-16555 (1990).
4. Le Goff, P. et al., *J. Biol. Chem.*, 269(6), 4458-4466 (1994).
5. Martin, T. and Kowalchuk, J., *Science*, 213(4), 1120-1122 (1981) .