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Technical Data Sheet

8-Bromo-cAMP

Catalog Number :2354843

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: 8 Bromo cAMP; 8 Bromo Cyclic Adenosine Monophosphate; 8 Bromo Cyclic AMP; 8 Bromo Cyclic AdenosineMonophosphate; Br Cycl AMP

Chemical Name: (4aR,6R,7R,7aS)-6-(6-amino-8-bromopurin-9-yl)-2-hydroxy-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-ol

Molecular Formula: $C_{10}H_{11}BrN_5PO_6$

Molecular Weight: 408.1

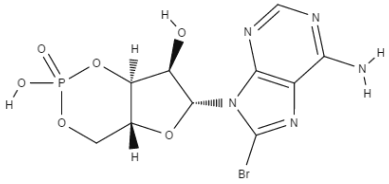
CAS Number: 23583-48-4

Purity: ≥95%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

8-Bromo-cAMP is a cell-permeable brominated derivative of cAMP that is longer lasting due to a higher resistance to cyclic AMP phosphodiesterase. cAMP activates protein kinases, used for intracellular signal transduction, and regulates the function of ion channels. 8-Bromo-cAMP is reported to enhance the induction of pluripotency in human fibroblast cells and protects neutrophils against TNF-α-induced apoptosis.

Preparation & Storage

Sparingly soluble in PBS. PBS up to 7.4 mM.

References

1.Rydel, R. E., Greene, L. A. (1988). cAMP analogs promote survival and neurite outgrowth in cultures of rat sympathetic and sensory neurons independently of nerve growth factor.;Proceedings of the National Academy of Sciences,;85(4), 1257-1261.

2. Ringler, G. E., Lee-Chuan, K., Miller, W. L., Strauss, J. F. (1989). Effects of 8-bromo-cAMP on expression of endocrine functions by cultured human trophoblast cells. Regulation of specific mRNAs.;Molecular and cellular endocrinology,;61(1), 13-21.

3. Wang, Y., Adjaye, J. (2011). A cyclic AMP analog, 8-Br-cAMP, enhances the induction of pluripotency in human fibroblast cells.;Stem Cell Reviews and Reports,;7(2), 331-341.

email: info@bio-gems.com | domain: www.bio-gems.com | phone: 818.338.3312 | fax: 818.338.3316

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