8-Bromo-cAMP sodium salt

Cat. No.: HY-12306

CAS No.: 76939-46-3

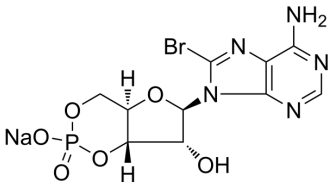
Molecular Formula: $C_{10}H_{10}BrN_5NaO_6P$

Molecular Weight: 430.08

Target: PKA

Pathway: Stem Cell/Wnt; TGF-beta/Smad

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 125 mg/mL (290.64 mM)

H_2O : 100 mg/mL (232.51 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3251 mL	11.6257 mL	23.2515 mL
5 mM	0.4650 mL	2.3251 mL	4.6503 mL
10 mM	0.2325 mL	1.1626 mL	2.3251 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (232.51 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

8-Bromo-cAMP sodium salt (8-Br-Camp sodium salt), a cyclic AMP analog, is an activator of cyclic AMP-dependent protein kinase (PKA)[1].

IC_{50} & Target

PKA[1]

In Vitro	8-Bromo-cAMP sodium salt is a brominated derivative of cyclic AMP. 8-Bromo-cAMP sodium salt enhances the efficiency of cellular reprogramming. 8-Bromo-cAMP sodium salt improves the reprogramming efficiency of human neonatal foreskin fibroblast (HFF1) cells. 8-Bromo-cAMP sodium salt inhibits proliferation, induce differentiation and apoptosis in a malignant glioma cell line (A-172) and an esophageal cancer cell line (Eca-109)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Part Fibre Toxicol. 2022 Feb 17;19(1):13.
- Sci Total Environ. 2022 Oct 10;842:156854.
- Cell Mol Life Sci. 2022 Nov 13;79(12):589.
- Cell Oncol. 2023 Mar 20.
- Hum Reprod. 2021 Jan 1;36(1):145-159.

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REFERENCES

[1]. Wang Y, et al. A cyclic AMP analog, 8-Br-cAMP, enhances the induction of pluripotency in human fibroblast cells. Stem Cell Rev. 2011 Jun;7(2):331-41.

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