

Catalog # 10-2627

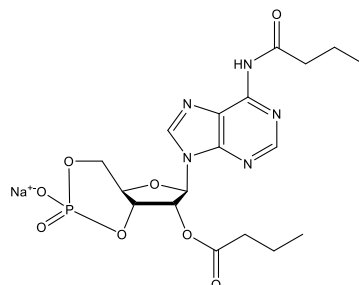
Dibutyryl cAMP

CAS# 16980-89-5

*N*⁶,*O*²-Dibutyryl adenosine 3',5'-cyclic monophosphate sodium salt;

Bucladesine Na

Lot # X101761



Cell-permeable cAMP analog which mimics the effect of endogenous cAMP when applied to cells.¹ Activates PKA.^{2,3} Induces morphological differentiation of astrocytes.⁴ Promotes differentiation of dopaminergic neurons from hPSCs (in cocktails with other agents).⁵

- 1) Bartsch *et al.* (2003), *Bioactivatable, membrane-permeant analogs of cyclic nucleotides as biological tools for growth control of C6 glioma cells*; *Biol. Chem.*, **384** 1321
- 2) Carranza *et al.* (1998), *Protein kinase A induces recruitment of active Na⁺,K⁺-ATPase units to the plasma membrane of rat proximal convoluted tubule cells*; *J. Physiol.*, **15** 511
- 3) Hei *et al.* (1991), *Lack of correlation between activation of cyclic AMP-dependent protein kinase and inhibition of contraction of rat vas deferens by cyclic AMP analogs*; *Mol. Pharmacol.*, **39** 233
- 4) Imamura *et al.* (1998), *Differential expression of dystrophin isoforms and utrophin during dibutyryl-cAMP-induced morphological differentiation of rat brain astrocytes*; *Proc. Natl. Acad. Sci. USA*, **95** 6139
- 5) Xia *et al.* (2016), *Transcriptional comparison of human induced and primary midbrain dopaminergic neurons*; *Sci. Rep.*, **6** 20270

PHYSICAL DATA

Molecular Weight:	491.37
Molecular Formula:	C ₁₈ H ₂₃ N ₅ O ₈ P · Na
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 50 mg/ml) or Water (up to 50 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or distilled water may be stored at -20°C for up to 1 month.

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