

## Dibutyryl-cAMP, sodium salt

Catalog Number :1698950

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

### Product Information

**Synonyms:** Bucladesine sodium salt, Actosin, MLS001148197

**Chemical Name:** sodium;[(4aR,6R,7R,7aR)-6-[6-(butanoylamino)purin-9-yl]-2-oxido-2-oxo-4a,6,7,7a-tetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-7-yl] butanoate

**Molecular Formula:** C<sub>18</sub>H<sub>23</sub>N<sub>5</sub>O<sub>8</sub>P Na

**Molecular Weight:** 491.4

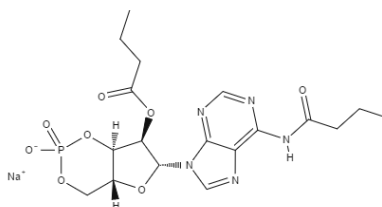
**CAS Number:** 16980-89-5

**Purity:** ≥95%

**Applications:** FA

**Formulation:** Crystalline solid

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



### Description

Dibutyryl-cAMP is a cell-permeable activator of cAMP-dependent protein kinases and phosphodiesterase inhibitor. It mimics endogenous cyclic adenosine monophosphate (cAMP). Dibutyryl-cAMP is reported to induce apoptosis in vascular smooth muscle cells and induce neurite growth.

### Preparation & Storage

Soluble in PBS pH 7.2 up to 6.5mM.

### References

- 1.Kahn, A. M., Dolson, G. M., Hise, M. K., Bennett, S. C., Weinman, E. J. (1985). Parathyroid hormone and dibutyryl cAMP inhibit Na<sup>+</sup>/H<sup>+</sup> exchange in renal brush border vesicles.;American Journal of Physiology-Renal Physiology,;248(2), F212-F218.
2. Leonard, J. L. (1988). Dibutyryl cAMP induction of type II 5' deiodinase activity in rat brain astrocytes in culture.;Biochemical and biophysical research communications,;151(3), 1164-1172.
3. Rundfeldt, C., Steckel, H., Sørensen, T., Wlaz, P. (2012). The stable cyclic adenosine monophosphate analogue, dibutyryl cyclo-adenosine monophosphate (bucladesine), is active in a model of acute skin inflammation.;Archives of dermatological research,;304(4), 313-317.