

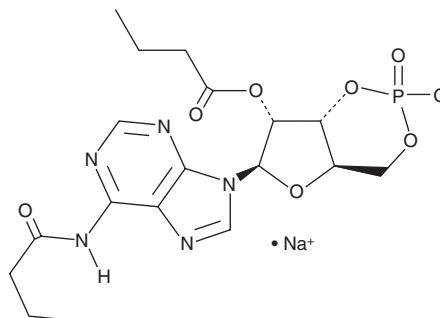
PRODUCT INFORMATION



Bucladesine (sodium salt)

Item No. 14408

CAS Registry No.: 16980-89-5
Formal Name: N-(1-oxobutyl)-cyclic
3',5'-(hydrogen phosphate)
2'-butanoate-adenosine,
monosodium salt
Synonyms: DC 2797
MF: C₁₈H₂₃N₅O₈P • Na
FW: 491.4
Purity: ≥95%
UV/Vis.: λ_{max}: 211, 271 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Bucladesine (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the bucladesine (sodium salt) in the solvent of choice, which should be purged with an inert gas. Bucladesine (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of bucladesine (sodium salt) in these solvents is approximately 5 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of bucladesine (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of bucladesine (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Bucladesine is a cell-permeable, cyclic nucleotide derivative that mimics the action of endogenous cyclic adenosine monophosphate (cAMP) and is a phosphodiesterase inhibitor.^{1,2} Because it mimics cAMP and can induce normal physiological responses when added to cells in experimental conditions, bucladesine is widely used in a variety of research applications.

References

1. Bartsch, M., Zorn-Kruppa, M., Kühl, N., *et al.* Bioactivatable, membrane-permeant analogs of cyclic nucleotides as biological tools for growth control of C6 glioma cells. *Biol. Chem.* **384(9)**, 1321-1326 (2003).
2. Rundfeldt, C., Steckel, H., Sörensen, T., *et al.* The stable cyclic adenosine monophosphate analogue, dibutyryl cyclo-adenosine monophosphate (bucladesine), is active in a model of acute skin inflammation. *Arch. Dermatol. Res.* **304(4)**, 313-317 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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