

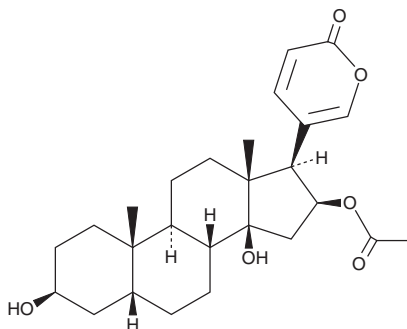
PRODUCT INFORMATION



Bufotalin

Item No. 34466

CAS Registry No.: 471-95-4
Formal Name: (3 β ,5 β ,16 β)-16-(acetyloxy)-3,14-dihydroxy-bufa-20,22-dienolide
Synonym: NSC 89596
MF: C₂₆H₃₆O₆
FW: 444.6
Purity: \geq 98%
UV/Vis.: λ_{max} : 295 nm
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Synthetic



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

Laboratory Procedures

Bufotalin is supplied as a solid. A stock solution may be made by dissolving the bufotalin in the solvent of choice, which should be purged with an inert gas. Bufotalin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of bufotalin in these solvents is approximately 30 mg/ml.

Description

Bufotalin is a bufadienolide that has been found in toad (*B. asiaticus*) venom and has cytotoxic and immunomodulatory activities.^{1,2} It induces cell cycle arrest at the G₁ phase and apoptosis in Hep3B cells when used at concentrations ranging from 0.13 to 1.13 μ M.¹ Bufotalin (100 μ g/kg) reduces autoantibody production, serum levels of TNF- α , IL-1 β , IFN- γ , IL-22, and IL-17, and the number of splenic and lymph node Th17 cells, as well as increases saliva flow rates in a mouse model of experimental Sjögren's syndrome, an autoimmune disease characterized by the reduced secretion of exocrine glands.² It also induces lethality in anesthetized dogs (LD₅₀ = 0.36 mg/kg).³

References

1. Su, C.-L., Lin, T.-Y., Lin, C.-N., *et al.* Involvement of caspases and apoptosis-inducing factor in bufotalin-induced apoptosis of Hep 3B cells. *J. Agric. Food Chem.* **57**(1), 55-61 (2009).
2. Huang, Y., Yang, G., Fei, J., *et al.* Bufotalin ameliorates experimental Sjögren's syndrome development by inhibiting Th17 generation. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **393**(10), 1977-1985 (2020).
3. Hamet, R. Toxicity of bufotalin administered by oral route. *Compt. Rend. Soc. Biol.* **152**, 571-574 (1958).

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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