

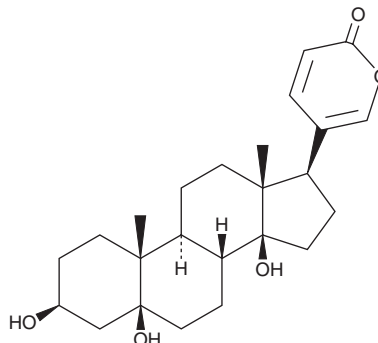
PRODUCT INFORMATION



Telocinobufagin

Item No. 27981

CAS Registry No.: 472-26-4
Formal Name: 3 β ,5 β ,14-trihydroxy-bufa-20,22-dienolide
Synonyms: NSC 90782, NSC 119989, Telobufotoxin, Telocinobufogenin
MF: C₂₄H₃₄O₅
FW: 402.5
Purity: \geq 98%
UV/Vis.: λ_{max} : 301 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Telocinobufagin is supplied as a crystalline solid. A stock solution may be made by dissolving the telocinobufagin in the solvent of choice, which should be purged with an inert gas. Telocinobufagin is slightly soluble in chloroform (warmed) and methanol.

Description

Telocinobufagin is a cardiotonic steroid that has been found in skin secretions of the toad *B. rubescens* and has diverse biological activities.¹⁻⁴ It inhibits human kidney Na⁺/K⁺-ATPase with an IC₅₀ value of 44.2 nM.² Telocinobufagin (9.9 μ g/ml) increases contraction force in isolated frog ventricle strips by 30.2%.³ It is cytotoxic to HL-60, HCT8, SF295, MDA-MB-435 cancer cells and human peripheral blood lymphocytes (IC₅₀s = 0.06, 0.06, 0.03, 0.11, and 0.05 μ M, respectively).⁴ Telocinobufagin is also active against *E. coli* and *S. aureus* (MICs = 64 and 128 μ g/ml, respectively).³

References

1. Pavlovic, D. The role of cardiotonic steroids in the pathogenesis of cardiomyopathy in chronic kidney disease. *Nephron Clin. Pract.* **128**(1-2), 11-21 (2014).
2. Touza, N.A., Pôças, E.S., Quintas, L.E.M., *et al.* Inhibitory effect of combinations of digoxin and endogenous cardiotonic steroids on Na⁺/K⁺-ATPase activity in human kidney membrane preparation. *Life Sci.* **88**(1-2), 39-42 (2011).
3. Cunha Filho, G.A., Schwartz, C.A., Resck, I.S., *et al.* Antimicrobial activity of the bufadienolides marinobufagin and telocinobufagin isolated as major components from skin secretion of the toad *Bufo rubescens*. *Toxicon.* **45**(6), 777-782 (2005).
4. Cunha-Filho G.A., Resck, I.S., Cavalcanti, B.C., *et al.* Cytotoxic profile of natural and some modified bufadienolides from toad *Rhinella schneideri* parotoid gland secretion. *Toxicon.* **56**(3), 339-348 (2010).

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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