

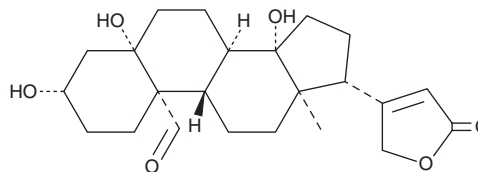
PRODUCT INFORMATION



Strophanthidin

Item No. 39244

CAS Registry No.: 66-28-4
Formal Name: 3 β ,5 β ,14-trihydroxy-19-oxo-card-20(22)-enolide
Synonym: NSC 86078
MF: C₂₃H₃₂O₆
FW: 404.5
Purity: \geq 90%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Plant/*Strophanthus kombe*



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

Laboratory Procedures

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

Description

Strophanthidin is a cardenolide that has been found in *A. schimperi* and has diverse biological activities.¹⁻⁴ It is an inhibitor of N-acetyltransferase (IC₅₀ = ~1.2 μ M).¹ Strophanthidin (1 μ M) reduces maximal Na⁺/K⁺-ATPase pump activity and cell attachment and increases cell death in MDCK-C7 cells.² It decreases the levels of steroid receptor coactivator 3 (SRC-3) in MCF-7 breast cancer cells when used at a concentration of 500 nM.³ Strophanthidin (50 μ M) increases calcium efflux and sarcoplasmic reticulum calcium levels in a voltage-clamp assay using isolated and perfused guinea pig hearts.⁴

References

1. González-García, C., Ceña, V., and Klein, D.C. Characterization of the α -like Na⁺,K⁺-ATPase which mediates ouabain inhibition of adrenergic induction of N-acetyltransferase (EC 2.3.1.87) activity: Studies with isolated pinealocytes. *Mol. Pharmacol.* **32(6)**, 792-797 (1987).
2. Akimova, O.A., Bagrov, A.Y., Lopina, O.D., et al. Cardiotonic steroids differentially affect intracellular Na⁺ and [Na⁺]_i/[K⁺]_i-independent signaling in C7-MDCK cells. *J. Biol. Chem.* **280(1)**, 832-839 (2005).
3. Wang, Y., Lonard, D.M., Yu, Y., et al. Bufalin is a potent small-molecule inhibitor of the steroid receptor coactivators SRC-3 and SRC-1. *Cancer Res.* **74(5)**, 1506-1517 (2014).
4. Bennett, D.L., O'Neill, S.C., and Eisner, D.A. Strophanthidin-induced gain of Ca²⁺ occurs during diastole and not systole in guinea-pig ventricular myocytes. *Pflugers Arch.* **437(5)**, 731-736 (1999).

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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