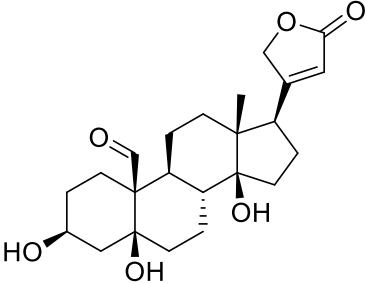


Product data sheet



MedKoo Cat#: 463995 Name: Strophanthidin CAS#: 66-28-4 Chemical Formula: C ₂₃ H ₃₂ O ₆ Exact Mass: 404.2199 Molecular Weight: 404.50	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Strophanthidin is a cardiotonic steroid that elevates the activity of Na⁺/K⁺-ATPase in cardiac myocytes. It decreases the potassium content and raises the sodium content in rabbit renal cortex slices.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
To be determined	To be determined	To be determined

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.47 mL	12.36 mL	24.72 mL
5 mM	0.49 mL	2.47 mL	4.94 mL
10 mM	0.25 mL	1.24 mL	2.47 mL
50 mM	0.05 mL	0.25 mL	0.49 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Tian X, Gu L, Zeng F, Liu X, Zhou Y, Dou Y, Han J, Zhao Y, Zhang Y, Luo Q, Wang F. Strophanthidin Induces Apoptosis of Human Lung Adenocarcinoma Cells by Promoting TRAIL-DR5 Signaling. *Molecules*. 2024 Feb 16;29(4):877. doi: 10.3390/molecules29040877. PMID: 38398629; PMCID: PMC10892344.
2. Reddy D, Ghosh P, Kumavath R. Strophanthidin Attenuates MAPK, PI3K/AKT/mTOR, and Wnt/β-Catenin Signaling Pathways in Human Cancers. *Front Oncol*. 2020 Jan 17;9:1469. doi: 10.3389/fonc.2019.01469. PMID: 32010609; PMCID: PMC6978703.

In vivo study

To be determined

7. Bioactivity

Biological target:

Strophanthidin is an inhibitor of N-acetyltransferase (IC₅₀ = ~1.2 μM).

In vitro activity

Strophanthidin has potential as an anticancer agent. In A549 lung adenocarcinoma cells, strophanthidin was found to increase expression of TRAIL-R2, activating caspase 3/6/8 and inducing apoptosis by upregulating ACIN1 and LMNA. Strophanthidin also

Product data sheet



elevated Banf1 levels and downregulated p38 MAPK/ERK signaling, contributing to cell growth inhibition. Additionally, strophanthidin decreased collagen COL1A5 expression, affecting the cell microenvironment.

Reference: Molecules. 2024 Feb 16;29(4):877. <https://pubmed.ncbi.nlm.nih.gov/38398629/>

In vivo activity

To be determined

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.