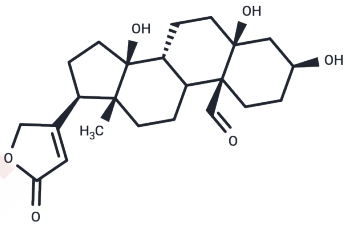
Data Sheet (Cat.No.TN5073)

TargetMol

Strophanthidin

Chemical Properties



CAS No. : 66-28-4

Formula: C23H32O6

Molecular Weight: 404.50

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Strophanthidin (Strophanthidine) can induce calcium overload in vivo.
Targets(IC50)	ATPase,Calcium Channel
In vitro	The effect of potassium and rubidium on the electrical and mechanical activity of canine Purkinje fibers were studied in vitro in the presence and absence of strophanthidin. METHODS AND RESULTS: High (5.4mM) K or 2.7 Rb decreased the force of contraction. In the presence of these ions, strophanthidin(Strophanthidine) increased the force of contraction as usual but the onset of arrhythmias was delayed. During the toxic stage of strophanthidin, high K or Rb increased the force of contraction, abolished the arrhythias and improved markedly the action potential. In the presence of calcium overload induced by exposure to a K-poor or Na-free solution, K and Rb induced an increase in force of contraction. And in ventricular muscle these ions relaxed the contracture induced by strophanthidin. CONCLUSIONS: It is concluded that K and Rb (in addition to other mechanisms) exert an antiarrhythmic action by increasing potassium conductance and by reducing the calcium overload induced by strophanthidin.

Solubility Information

Solubility	DMSO: 25.00 mg/mL (61.80 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4722 mL	12.3609 mL	24.7219 mL
5 mM	0.4944 mL	2.4722 mL	4.9444 mL
10 mM	0.2472 mL	1.2361 mL	2.4722 mL
50 mM	0.0494 mL	0.2472 mL	0.4944 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

The antiarrhythmic effect of potassium and rubidium in strophanthidin toxicity. European Journal of Pharmacology, 1980, 62(1):0-15.