

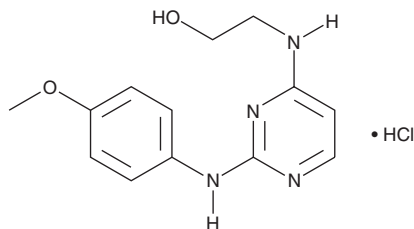
PRODUCT INFORMATION



Cardiogenol C (hydrochloride)

Item No. 13187

CAS Registry No.: 671225-39-1
Formal Name: 2-[[2-[(4-methoxyphenyl)amino]-4-pyrimidinyl]amino]-ethanol, monohydrochloride
MF: C₁₃H₁₆N₄O₂ • HCl
FW: 296.8
Purity: ≥97%
UV/Vis.: λ_{max}: 252 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Cardiogenol C (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the cardiogenol C (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Cardiogenol C (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of cardiogenol C (hydrochloride) in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of cardiogenol C (hydrochloride) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of cardiogenol C (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Most tissues have an endogenous pool of progenitor cells to draw from upon injury. The adult heart, however, contains a limited number of undifferentiated cells and techniques to replicate these cells from other pluripotent tissues have thus far been nonselective and inefficient. Cardiogenol C is a diaminopyrimidine compound that induces the differentiation of myosin heavy chain (MHC) positive cardiomyocytes from embryonic stem cells with an EC₅₀ value of 0.1 μM.¹ About 90% of embryonic stem cells treated with 0.25 μM cardiogenol C express the cardiac muscle cell specific transcription factors GATA-4, MEF2, and Nkx2.5 and display the characteristic beating behavior of differentiated cardiomyocytes.¹

Reference

1. Wu, X., Ding, S., Ding, Q., *et al.* Small molecules that induce cardiomyogenesis in embryonic stem cells. *J. Am. Chem. Soc.* **126**(6), 1590-1591 (2004).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM