

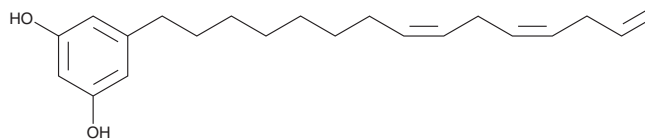
PRODUCT INFORMATION



Cardol triene

Item No. 23374

CAS Registry No.: 79473-24-8
Formal Name: 5-8Z,11Z,14-pentadecatrien-1-yl-1,3-benzenediol
MF: C₂₁H₃₀O₂
FW: 314.5
Purity: ≥95%
UV/Vis.: λ_{max}: 275 nm
Supplied as: A neat oil
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

Cardol triene is supplied as a neat oil. A stock solution may be made by dissolving the oil in the solvent of choice. Cardol triene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of cardol triene in these solvents is approximately 22, 15, and 20 mg/ml, respectively.

Cardol triene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cardol triene should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Cardol triene has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cardol triene is a phenol found in cashew nut shell liquid that competitively and irreversibly inhibits mushroom tyrosinase (IC₅₀ = 22.5 μM).^{1,2} It is schistosomicidal, killing 25, 75, and 100% of *S. mansoni* worms after 24 hours when used at concentrations of 50, 100, or 200 μM, respectively.³ It has been used as a starting material for the synthesis of bis-benzoxazines.⁴

References

1. Tyman, J.H., and Kiong, L.S. Long chain phenols: Part XI. Composition of natural cashew nutshell liquid (*Anacardium occidentale*) from various sources. *Lipids* **13(8)**, 525-532 (1978).
2. Zhuang, J.-X., Hu, Y.-H., Yang, M.-H., et al. Irreversible competitive inhibitory kinetics of cardol triene on mushroom tyrosinase. *J. Agric. Food Chem.* **58(24)**, 12993-12998 (2010).
3. Alvarenga, T.A., de Oliveira, P.F., de Souza, J.M., et al. Schistosomicidal activity of alkyl-phenols from the cashew *Anacardium occidentale* against *Schistosoma mansoni* adult worms. *J. Agric. Food Chem.* **64(46)**, 8821-8827 (2016).
4. Attanasi, O.A., Behalo, M.S., Favi, G., et al. Solvent free synthesis of novel mono- and bis-benzoxazines from cashew nut shell liquid components. *Curr. Org. Chem.* **16(21)**, 2613-2621 (2012).

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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