

2-(Hydroxymethyl)anthraquinone

Chemical Properties

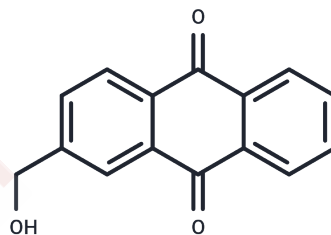
CAS No. : 17241-59-7

Formula: C₁₅H₁₀O₃

Molecular Weight: 238.24

Storage: 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	2-(Hydroxymethyl)anthraquinone exhibits strong activity against Helicobacter pylori ATCC 43504 at 0.01 mg/disc.
Targets(IC50)	Anti-infection
In vitro	The growth-inhibiting activity of <i>Tabebuia impetiginosa</i> Martius ex DC dried inner bark-derived constituents against <i>Helicobacter pylori</i> ATCC 43504 was examined using paper disc diffusion and minimum inhibitory concentration (MIC) bioassays. The activity of the isolated compounds was compared to that of the commercially available anti- <i>Helicobacter pylori</i> agents, amoxicillin, metronidazole, and tetracycline. The biologically active components of <i>Tabebuia impetiginosa</i> dried inner bark (taheebo) were characterized by spectroscopic analysis as 2-(Hydroxymethyl)anthraquinone, anthraquinone-2-carboxylic acid, and 2-hydroxy-3-(3-methyl-2-butenyl)-1,4-naphthoquinone (lapachol). With the paper disc diffusion assay 2-(Hydroxymethyl)anthraquinone exhibited strong activity against <i>Helicobacter pylori</i> ATCC 43504 at 0.01 mg/disc. Anthraquinone-2-carboxylic acid, lapachol and metronidazole were less effective, exhibiting moderate anti- <i>Helicobacter pylori</i> activity at 0.1 mg/disc. Amoxicillin and tetracycline were the most potent compounds tested, displaying very strong activity at 0.005 mg/disc. 2-(Hydroxymethyl)anthraquinone exhibited moderate activity at this dose. Tetracycline still had strong activity at 0.001 mg/disc while amoxicillin had little activity at this dose.

Solubility Information

Solubility	DMSO: 250 mg/mL (1049.36 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1974 mL	20.9872 mL	41.9745 mL
5 mM	0.8395 mL	4.1974 mL	8.3949 mL
10 mM	0.4197 mL	2.0987 mL	4.1974 mL
50 mM	0.0839 mL	0.4197 mL	0.8395 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

Antibacterial activity of *Tabebuia impetiginosa* Martius ex DC (Taheebo) against *Helicobacter pylori*
Ethnopharmacol. 2006 Apr 21;105(1-2):255-62.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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