

Ferruginol

Chemical Properties

CAS No.:	514-62-5
Formula:	C ₂₀ H ₃₀ O
Molecular Weight:	286.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Ferruginol has anti-plasmodial, leishmanicidal, anti-ulcerogenic, cardioprotective, anticancer, anti-oxidative and anti-inflammatory activities, it can induce apoptosis in non-small cell lung cancer (NSCLC) cells.
Targets(IC ₅₀)	PARP: None Bcl-2: None Caspase: None
In vitro	The radial accumulation pattern of Ferruginol was examined from sapwood and through the intermediate wood to the heartwood by direct mapping using time-of-flight secondary ion mass spectrometry (TOF-SIMS). The data were compared with quantitative results obtained from a novel method of gas chromatography analysis using laser microdissection sampling and with water distribution obtained from cryo-scanning electron microscopy. Ferruginol initially accumulated in the middle of the intermediate wood, in the earlywood near the annual ring boundary. It accumulated throughout the entire earlywood in the inner intermediate wood, and in both the earlywood and the latewood in the heartwood. The process of Ferruginol accumulation continued for more than eight annual rings. Ferruginol concentration peaked at the border between the intermediate wood and heartwood, while the concentration was less in the latewood compared with the earlywood in each annual ring. Ferruginol tended to accumulate around the ray parenchyma cells. In addition, at the border between the intermediate wood and heartwood, the accumulation was higher in areas without water than in areas with water[1]

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.49 mL	17.452 mL	34.904 mL
5 mM	0.698 mL	3.49 mL	6.981 mL
10 mM	0.349 mL	1.745 mL	3.49 mL
50 mM	0.07 mL	0.349 mL	0.698 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. The accumulation pattern of ferruginol in the heartwood-forming *Cryptomeria japonica* xylem as determined by time-of-flight secondary ion mass spectrometry and quantity analysis. *Ann Bot.* 2014 May;113(6):1029-36.

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