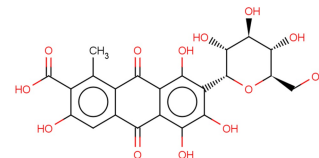


Carminic acid

Chemical Properties

CAS No.:	1260-17-9
Formula:	C ₂₂ H ₂₀ O ₁₃
Molecular Weight:	492.39
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Carminic acid, the well-known red dyestuff from cochineal insects (<i>Dactylopius</i> spp.), is a potent feeding deterrent to ants. Carminic acid is an antioxidant to protect erythrocytes and DNA against radical-induced oxidation, it also has antitumor activity.
Targets(IC ₅₀)	ROS: None
In vitro	Carminic acid, the well-known red dyestuff from cochineal insects (<i>Dactylopius</i> spp.), is a potent feeding deterrent to ants. This deterrence may be indicative of the natural function of the compound, which may have evolved in cochineals as a chemical weapon against predation. The behavior of an unusual predator is described-the carnivorous caterpillar of a pyralid moth (<i>Laetilia coccidivora</i>)-which is undeterred by Carminic acid and feeds on cochineals. CONCLUSIONS:The animal has the remarkable habit of utilizing the ingested Carminic acid for defensive purposes of its own.

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	2.031 mL	10.155 mL	20.309 mL
5 mM	0.406 mL	2.031 mL	4.062 mL
10 mM	0.203 mL	1.015 mL	2.031 mL
50 mM	0.041 mL	0.203 mL	0.406 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. Red cochineal dye (carminic acid): Its role in nature. *Science*. 1980 May 30;208(4447):1039-42.
2. Carminic acid: An antioxidant to protect erythrocytes and DNA against radical-induced oxidation. *Journal of Physical Organic Chemistry*, 2009 , 22 (9) :883-7.

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