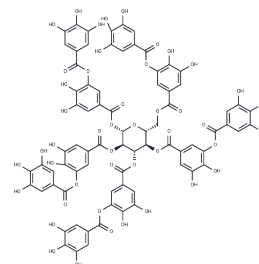


Chinese gallotannin

Chemical Properties

CAS No. :	5424-20-4
Formula:	C76H52O46
Molecular Weight:	1701.2
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	Chinese gallotannin, derived from <i>Galla Chinensis</i> , is a non-specific promiscuous inhibitor of various enzymes. It is a potent inhibitor of human salivary α -amylase, with a K_i value of 0.82 $\mu\text{g}/\text{mL}$. Mechanistic studies reveal that gallotannins exert their inhibitory effects through the formation of aggregates, which serve as the active species in the inhibition process. Beyond its role in carbohydrate metabolism, it exhibits inhibitory activity against telomerase, fatty acid synthase, and 5 α -reductase, making it a versatile tool for research in diabetes, oncology, and metabolic disorders.
Targets(IC50)	Amylase

Solubility Information

Solubility	DMSO: 80 mg/mL (47.03 mM), Sonication is recommended. ($< 1 \text{ mg/ml}$ refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5878 mL	2.9391 mL	5.8782 mL
5 mM	0.1176 mL	0.5878 mL	1.1756 mL
10 mM	0.0588 mL	0.2939 mL	0.5878 mL
50 mM	0.0118 mL	0.0588 mL	0.1176 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

Szabó K, et al. Gallotannins are non-specific inhibitors of α -amylase: Aggregates are the active species taking part in inhibition. Chem Biol Drug Des. 2021 Feb;97(2):349-357.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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