

5-Heneicosylresorcinol

Chemical Properties

CAS No. : 70110-59-7

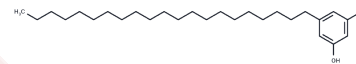
Formula: C27H48O2

Molecular Weight: 404.67

Store at low temperature

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	5-Heneicosylresorcinol shows inhibitory effects on the release of β -hexosaminidase from RBL-2H3 cells, it also prevents triglyceride accumulation in 3T3-L1 cells. 5-Heneicosylresorcinol has nematocidal activity against nematodes <i>Panagrellus redivivus</i> , <i>Caenorhabditis elegans</i> and <i>Bursaphelenchus xylophilus</i> , with ED50 values of 80, 30, and 180 $\mu\text{g}/\text{mL}$, respectively.
Targets(IC50)	Antifection,Antifungal,NADPH-oxidase
In vitro	Alkylresorcinols are phenolic lipids present at levels of 0.03-0.15% in wheat and rye grains and almost 10 times higher in respective bran products. Despite numerous studies on the influence of dietary fibers on the regulation of energy metabolism, this issue still remains controversial. METHODS AND RESULTS: The objective of our current studies was to investigate whether 5-n-alk(en)ylresorcinols, natural phenolic components of high fiber human diets, may be considered as natural regulators of excessive fat accumulation. Our studies revealed that 5-n-alk(en)ylresorcinols isolated from wheat and rye bran inhibit glycerol-3-phosphate dehydrogenase, the key enzyme in triglyceride synthesis in adipocytes, specifically and effectively. Further in vitro studies showed that these compounds also prevent triglyceride accumulation in 3T3-L1 cells. CONCLUSIONS: The most effective compound in both systems was 5-n-heneicosylresorcinol(5-Heneicosylresorcinol). The results indicate that the potential to prevent triglyceride accumulation increases with the hydrophobicity of the phenolic inhibitor.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4711 mL	12.3557 mL	24.7115 mL
5 mM	0.4942 mL	2.4711 mL	4.9423 mL
10 mM	0.2471 mL	1.2356 mL	2.4711 mL
50 mM	0.0494 mL	0.2471 mL	0.4942 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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