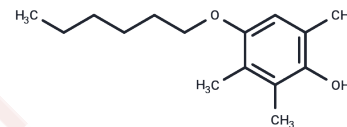


HTHQ

Chemical Properties

CAS No. :	148081-72-5
Formula:	C ₁₅ H ₂₄ O ₂
Molecular Weight:	236.35
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	HTHQ (HTHQ(1-O-Hexyl-2,3,5-trimethylhydroquinone)), a hydroquinone monoalkyl ether, is an effective anti-oxidative agent. HTHQ is a potent anti-lipid-peroxidative compound and its antioxidation activity to be extremely elevated in biological systems, such as that of liver microsomes via the generation of stable free radicals.
Targets(IC50)	Reactive Oxygen Species, ROS
In vitro	HTHQ has an anti-oxidative activity similar to D,L-alpha-tocopherol against lipid peroxidation in linolate micelles initiated by addition of Fe ²⁺ . The anti-lipid-peroxidation activity of HTHQ is higher 4.8-fold than that of D,L-alpha-tocopherol against the peroxidation in phosphatidylcholine liposomes initiated by addition of Fe ²⁺ . [1] The effects of 0.02% Glu-P-1 or 0.03% MeIQx on the number and area of foci is significantly reduced by 0.125% HTHQ. [2]
In vivo	Treatment with HTHQ potently inhibits PhIP-induced mammary carcinogenesis in female rats. Compared with DMN-induced hepatic fibrosis animals in the liver tissue, HTHQ reduced mRNA level of PDGF (Platelet-derived growth factor), α -SMA (α -smooth muscle actin) and TGF- β (transforming growth factor- β). In this study, we showed that HTHQ improves against DMN-induced liver fibrosis in male SD rats.

Solubility Information

Solubility	DMSO: 43 mg/mL (181.93 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.46 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.231 mL	21.1551 mL	42.3101 mL
5 mM	0.8462 mL	4.231 mL	8.462 mL
10 mM	0.4231 mL	2.1155 mL	4.231 mL
50 mM	0.0846 mL	0.4231 mL	0.8462 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

Hirose M, et al. Carcinogenesis. 1995 Dec;16(12):3049-55.

Hino T, et al. Biochim Biophys Acta. 1998 Sep 16;1425(1):47-60.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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