

## Decylubiquinone

## Chemical Properties

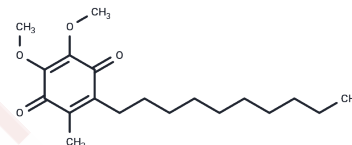
CAS No. : 55486-00-5

Formula: C19H30O4

Molecular Weight: 322.44

Storage: Store at low temperature, Keep away from moisture  
 Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Decylubiquinone (DUB) is a coenzyme Q10 analog with anticancer activity, inhibiting breast cancer growth and metastasis, enhancing mitochondrial function in synaptosomes, and inhibiting tumor-induced angiogenesis.
Targets(IC50)	Reactive Oxygen Species, ROS
In vitro	After treating HCT116 and LoVo cells with different concentrations of Decylubiquinone for 96 h, Decylubiquinone significantly reduced the proliferation of HCT116 and LoVo cells in a dose-dependent manner. The IC50 values were 45.84 $\mu$ M and 28.11 $\mu$ M, respectively. [1] Decylubiquinone (50 $\mu$ m) significantly increased the activity of the ETC complex in the synaptosome. [2]
In vivo	In mouse CRC CT26 cell xenotransplantation model, Decylubiquinone (5 mg/kg, 12 days) was intraperitoneally injected, and it was found that Decylubiquinone significantly reduced CRC growth. [1]

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1014 mL	15.5068 mL	31.0135 mL
5 mM	0.6203 mL	3.1014 mL	6.2027 mL
10 mM	0.3101 mL	1.5507 mL	3.1014 mL
50 mM	0.062 mL	0.3101 mL	0.6203 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

Li J, et al. Decylubiquinone Inhibits Colorectal Cancer Growth Through Upregulating Sirtuin2. *Front Pharmacol.* 2022 Feb 1;12:804265.

Telford JE, et al. Decylubiquinone increases mitochondrial function in synaptosomes. *J Biol Chem.* 2010 Mar 19;285(12):8639-45.

Armstrong JS, Whiteman M, Rose P, Jones DP. The Coenzyme Q10 analog decylubiquinone inhibits the redox-activated mitochondrial permeability transition: role of mitochondrial [correction mitochondrial] complex III. *J Biol Chem.* 2003 Dec 5;278(49):49079-84. Epub 2003 Aug 29. PubMed PMID: 12949071.

Amarneh B, Vik SB. Mutagenesis of subunit N of the Escherichia coli complex I. Identification of the initiation codon and the sensitivity of mutants to decylubiquinone. *Biochemistry.* 2003 May 6;42(17):4800-8. PubMed PMID: 12718520.

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