

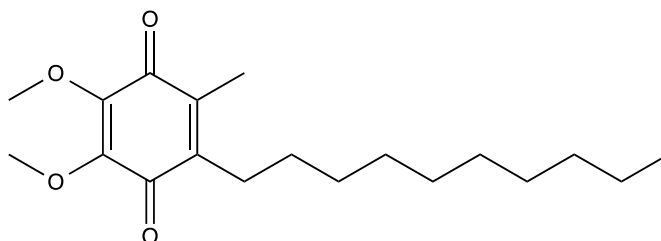
Catalog # 10-2580

Decylubiquinone

CAS# 55486-00-5

2,3-Dimethoxy-5-methyl-6-decyl-1,4-benzoquinone

Lot # FBS3040



Inhibits the Ca²⁺ dependent mitochondrial permeability transition pore (MPTP) without inhibiting respiration.¹ Maximum effect on Ca²⁺ retention capacity of rat liver mitochondria at 100 μM. Inhibits etoposide-induced apoptosis in in L929 cells at 5 μM via inhibition of cytochrome c release.² Delays rotenone-induced cardiac dysfunction in a zebrafish model of development and cardiovascular function.³ Substrate for various quinone oxidoreductases.^{4,5}

- 1) Fontaine *et al.* (1998), *A Ubiquinone-binding Site Regulates the Mitochondrial Permeability Transition Pore*; J. Biol. Chem., **273** 25734
- 2) Karpinich *et al.* (2002), *The course of Etoposide-Induced Apoptosis from Damage to DNA and p53 Activation to Mitochondrial Release of Cytochrome c*; J. Biol. Chem., **277** 16547
- 3) Pinho *et al.* (2013) *How mitochondrial dysfunction affects zebrafish development and cardiovascular function: an in vivo model for testing mitochondria-targeted drugs*; Br. J. Pharmacol., **169** 1072
- 4) Kunow *et al.* (1994) *F420H2: quinone oxidoreductase from Archaeoglobus fulgidus. Characterization of a membrane-bound multisubunit complex containing FAD and iron-sulfur clusters*; Eur. J. Biochem., **223** 503
- 5) Zickermann *et al.* (1998) *Analysis of the pathogenic human mitochondria mutation ND1/3460 and mutations of strictly conserved residues in it's vicinity, using the bacterium Paracoccus denitrificans*; Biochemistry, **37** 11792

PHYSICAL DATA

Molecular Weight:	322.44
Molecular Formula:	C ₁₉ H ₃₀ O ₄
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mg/ml)
Physical Description:	Orange Oil
Storage and Stability:	Store as supplied at -20° for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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