

## Catalog # 10-2580 Decylubiquinone CAS# 55486-00-5 2,3-Dimethoxy-5-methyl-6-decyl-1,4-benzoquinone Lot # FBS1091



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

- 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 Paracoccis denitrificans; Biochemistry, **37** 11792

## PHYSICAL DATA

Molecular Weight:	322.44
Molecular Formula:	C <sub>19</sub> H <sub>30</sub> O <sub>4</sub>
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.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.