

Catalog # 10-1363 Mitoquinone

CAS# 444890-41-9 10-(6'-Ubiquinonyl)decyltriphenylphosphonium bromide Lot # M101061

A mitochondria-targeted antioxidant. Displays cardio- and neuroprotective effects¹. Displays beneficial effects in mouse models of Alzheimer's disease². Protects pancreatic β -cells against oxidative stress and improves insulin secretion³. Cell permeable.

- 1) Ghosh et al. (2010), Neuroprotection by a mitochondria-targeted drug in a Parkinson's disease model; Free Radic. Biol. Med., **49** 1674
- 2) McManus et al. (2011), The mitochondria-targeted antioxidant MitoQ prevents loss of spatial memory retention and early neuropathology in a transgenic mouse model of Alzheimer's disease; J. Neurosci., **31** 15703
- 3) Lim et al. (2011), Mitochondria-targeted antioxidants protect pancreatic β -cells against oxidative stress and improve insulin secretion in glucotoxicity and glucolipotoxicity; Cell Physiol. Biochem., **28** 873
- 4) Deng et al. (2019), Myo-inositol oxygenase expression profile modulates pathogenic ferroptosis in the renal proximal tubule; J. Clin. Invest., **129** 5033 [Focus Citation]

PHYSICAL DATA

Molecular Weight: 663.64
Molecular Formula: C₃₇H₄₄BrO₄P
Purity: 98% by TLC

NMR: (Conforms)

Solubility: DMSO (70 mg/mL); ethanol (30 mg/mL)

Physical Description: Orange waxy solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 3 years from the date of purchase. Solutions in

DMSO or ethanol may be stored at -20°C for up to 3 months.

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