



Mitoquinone

Data Sheet

Catalog Number:	MC11041	Product Type:	Small Molecule
Bio-Activity:	Mitochondria-targeted antioxidant	CAS #:	444890-41-9
Research Categories:	Oxidative stress, neuroscience, cell death, neurodegeneration, inflammation	Chemical Name:	10-(6'-Ubiquinonyl)decyltriphenylphosphonium bromide
Solubility:	Soluble in DMSO (up to 70 mg/ml) or in Ethanol (up to 30 mg/ml)	Molecular Formula:	C ₃₇ H ₄₄ BrO ₄ P
Purity:	> 98%	Molecular Weight:	663.6
Format:	Wax	Ship Temp:	Ambient
Storage:	-20°C		

Application Notes

Description/Data:

A mitochondria-targeted antioxidant. Displays cardio- and neuroprotective effects [1]. Displays beneficial effects in mouse models of Alzheimer's disease [2]. Protects pancreatic β -cells against oxidative stress and improves insulin secretion [3]. Cell permeable.

References:

- 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

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