



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:	C37H44BrO4P
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

FOR RESEARCH USE ONLY

NEUROMICS' REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.-V2/08/2012