

Catalog # 10-3913

Visomitin

CAS# 934826-68-3

10-(4,5-Dimethyl-3,6-dioxocyclohexa-1,4-dien-1-yl)decyltriphenylphosphonium bromide; SKQ1 Lot # FBS3026

Visomitin is a mitochondria-targeted antioxidant.^{1,2} A useful tool for studying mitochondrial oxidative stress involvement in many disease states.³⁻⁶ In clinical trials for the treatment of various eye disorders including dry eye, glaucoma, and ocular inflammation.^{7,8}

- 1) Antonenko et al. (2008), Mitochondria-targeted plastoquinone derivatives as tools to interrupt execution of the aging program.

 1. Cationic plastoquinone derivatives: synthesis and in vitro studies; Biochemistry (Mosc)., **73** 1273
- Antonenko et al. (2008), Mitochondria-targeted plastoquinone derivatives as tools to interrupt execution of the aging program.
 Treatment of some ROS- and age-related diseases (heart arrhythmia, heart infarctions, kidney ischemia, and stroke;
 Biochemistry (Mosc)., 73 1288
- 3) Skulachev et al. (2013), Cationic antioxidants as a powerful tool against mitochondrial oxidative stress; Biochem. Biophys. Res. Commun., **441** 275
- 4) Silva et al. (2016), Targeting Mitochondria in Cardiovascular Disease; Curr. Pharm. Des., 22 5698
- 5) Isaev et al. (2016), Neuroprotective properties of mitochondria-targeted antioxidants of the SkQ-type; Rev. Neurosci., 27 849
- 6) Tabara et al. (2014), Mitochondria-targeted therapies for acute kidney injury; Expert Rev. Mol. Med., 16 e13
- 7) Brzheskiy et al. (2015), Results of a Multicenter, Randomized, Double-Masked, Placebo-Controlled Clinical Study of the Efficacy and Safety of Visomitin Eye Drops in Patients with Dry Eye Syndrome; Adv. Ther., **32** 1263
- 8) Wei et al. (2019), The Role of SKQ1 (Visomitin) in Inflammation and Wound Healing of the Ocular Surface; Ophthalmo. Ther., **8** 63

PHYSICAL DATA

Molecular Weight: 617.61

Molecular Formula: CasHasE

Molecular Formula: $C_{36}H_{42}BrO_2P$ Purity: 98% byTLC

NMR: (Conforms)

Solubility: DMSO (50 mg/ml)

Physical Description: Thick orange oil/gum. Product is very hygroscopic.

Storage and Stability: Store as supplied at -20°C 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.