



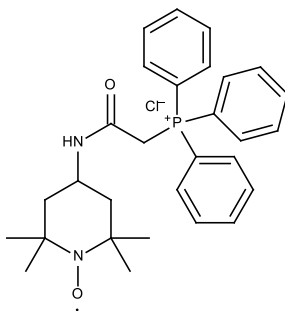
**Catalog # 10-4100**

**Mito-TEMPO**

CAS# 1334850-99-5

(2-(2,2,6,6-Tetramethylpiperidin-1-oxyl-4-ylamino)-2-oxoethyl)triphenylphosphonium chloride

Lot # FBA5263



Mitochondria-targeted antioxidant. Partially prevents mitochondrial permeability transition pore opening, necrosis and mitochondrial apoptosis after ATP depletion recovery.<sup>1</sup> Resolves mitochondrial oxidative stress and rescues coronary collateral growth in Zucker obese fatty rats.<sup>2</sup> Protects mitochondrial membrane potential and attenuates reperfusion-induced ROS production in a mouse ventricular myocyte model.<sup>3</sup> Abrogates the induction of senescence in a human vascular smooth muscle cell model.<sup>4</sup>

- 1) Liang *et al.* (2010) *SOD1 and MitoTEMPO partially prevent mitochondrial permeability transition pore opening, necrosis and mitochondrial apoptosis after ATP depletion recovery*; Free Radic. Biol. Med. **49** 1550
- 2) Pung *et al.* (2012) *Resolution of mitochondrial oxidative stress rescues coronary collateral growth in Zucker obese fatty rats*; Arterioscler. Thromb. Vasc. Biol. **32** 325
- 3) DeSantiago *et al.* (2013) *Ischemia/Reperfusion injury protection by mesenchymal stem cell derived antioxidant capacity*; Stem Cells Dev. **22** 2497
- 4) Mistri *et al.* (2013) *A role for mitochondrial oxidants in stress-induced premature senescence of human vascular smooth muscle cells*; Redox. Biol. **1** 411

### **PHYSICAL DATA**

Molecular Weight: 510.03

Molecular Formula: C<sub>29</sub>H<sub>35</sub>ClN<sub>2</sub>O<sub>2</sub>P

Purity: 98% byTLC (5%Methanol/methylene chloride Rf = 0.50))

High Resolution Mass Spec: (Conforms)

Solubility: Water (>40mg/mL), DMSO (> 25 mg/ml), or ethanol (>40 mg/ml)

Physical Description: Pale orange solid

Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Protect from exposure to moisture and light.

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