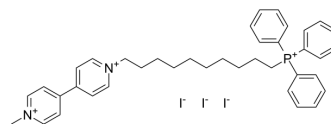


## MitoPQ

<b>Cat. No.:</b>	HY-130278
<b>CAS No.:</b>	1821370-28-8
<b>Molecular Formula:</b>	C <sub>39</sub> H <sub>46</sub> I <sub>3</sub> N <sub>2</sub> P
<b>Molecular Weight:</b>	954.48
<b>Target:</b>	ROS Kinase
<b>Pathway:</b>	Protein Tyrosine Kinase/RTK
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 50 mg/mL (52.38 mM; Need ultrasonic)  
DMSO : 33.33 mg/mL (34.92 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.0477 mL	5.2385 mL	10.4769 mL
	5 mM	0.2095 mL	1.0477 mL	2.0954 mL
	10 mM	0.1048 mL	0.5238 mL	1.0477 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

MitoPQ is a mitochondria-targeted redox cycler. MitoPQ produces superoxide by redox cycling at the flavin site of complex I, selectively increasing superoxide production within mitochondria. MitoPQ can be used in antioxidant study<sup>[1]</sup>.

#### In Vitro

MitoPQ (5 μM, 0.5 s-20 min) increases MitoSOX fluorescence in dose- and time-dependently manner in C2C12 myoblasts<sup>[1]</sup>.  
MitoPQ (1-10 μM, 6 h) increases MnSOD expression at the dose of 1-5 μM and decreases MnSOD expression at the dose of 10 μM in C2C12 myoblasts<sup>[1]</sup>.  
MitoPQ (1-10 μM, 24 h) increased HCT-116 cell death<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Nano Today. 2023 Jun.
- Redox Biol. 2022 Oct 11;57:102507.

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See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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[1]. Robb EL, et al. Selective superoxide generation within mitochondria by the targeted redox cycler MitoParaquat. Free Radic Biol Med. 2015 Dec;89:883-94.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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