

Mitoquinone

Catalog No: tcsc0018095



Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg



Specifications

CAS No:

444890-41-9

Formula:

$C_{37}H_{44}O_4P$

Pathway:

Others

Target:

Others

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

MitoQ; MitoQ10

Observed Molecular Weight:

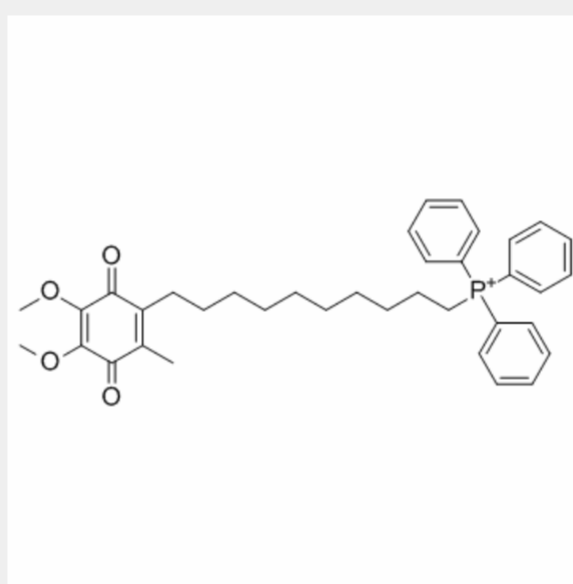
583.72

Product Description

Mitoquinone is a **mitochondria**-targeted antioxidant designed to accumulate within mitochondria in vivo in order to protect against oxidative damage.

In Vitro: Mitoquinone (MitoQ) is a mitochondria-targeted antioxidant. The optimal doses for Mitoquinone (MitoQ) and DecylITPP treatment are selected from dose-response experiments during 4-h cold storage (CS). The potential protective benefits of Mitoquinone treatment against CS injury are tested initially using MitoSOX Red, a mitochondrial-targeted fluorescent dye that measures mitochondrial superoxide generation. Normal rat kidney (NRK) cells exposed to CS result in a ~2-fold increase in fluorescence due to mitochondrial superoxide compared with untreated cells. Mitoquinone offers significant protection against CS-induced mitochondrial superoxide generation; whereas the control compound DecylITPP does not offer any protection. Mitoquinone treatment markedly decreases mitochondrial superoxide generation, whereas kidneys treated with DecylITPP have comparable levels of mitochondrial superoxide to kidneys exposed to CS alone^[1].

In Vivo: Mitoquinone (MitoQ) treatment significantly reduces pancreatic oedema and neutrophil infiltration. MitoQ dose-dependently increases serum amylase with an approximate doubling at the higher dose. MitoQ treatment nearly doubles lung MPO activity induced by Caerulein with a significant increase of serum IL-6 levels also evident at 10 mg/kg (dose 1)^[2].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!