

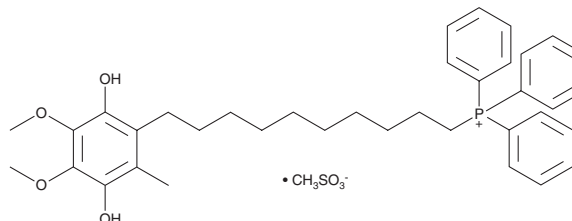
# PRODUCT INFORMATION



## Mitoquinol

Item No. 89950

**CAS Registry No.:** 845959-55-9  
**Formal Name:** [10-(2,5-dihydroxy-3,4-dimethoxy-6-methylphenyl)decyl]triphenyl-phosphonium, monomethanesulfonate  
**MF:** C<sub>37</sub>H<sub>46</sub>O<sub>4</sub>P • CH<sub>3</sub>O<sub>3</sub>S  
**FW:** 680.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 268, 275, 290 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Mitoquinol is supplied as a crystalline solid. A stock solution may be made by dissolving the mitoquinol in the solvent of choice, which should be purged with an inert gas. Mitoquinol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of mitoquinol in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of mitoquinol can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of mitoquinol in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Mitoquinol is a mitochondria-targeted antioxidant and reduced form of mitoquinone (Item No. 29317).<sup>1</sup> It reduces hydrogen peroxide production in succinate-fueled isolated bovine aortic endothelial mitochondria.<sup>2</sup>

### References

1. Kelso, G.F., Porteous, C.M., Coulter, C.V., *et al.* Selective targeting of a redox-active ubiquinone to mitochondria within cells. Antioxidant and antiapoptotic properties. *J. Biol. Chem.* **276**(7), 4588-4596 (2001).
2. O'Malley, Y., Fink, B.D., Ross, N.C., *et al.* Reactive oxygen and targeted antioxidant administration in endothelial cell mitochondria. *J. Biol. Chem.* **281**(52), 39766-39775 (2006).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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