

# PRODUCT INFORMATION

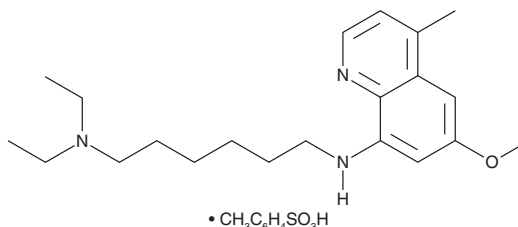


## Sitamaquine (tosylate)

Item No. 33590

**CAS Registry No.:** 1019640-33-5  
**Formal Name:** N<sup>1</sup>,N<sup>1</sup>-diethyl-N<sup>6</sup>-(6-methoxy-4-methyl-8-quinolinyl)-1,6-hexanediamine, 4-monomethylbenzenesulfonate

**Synonym:** WR-6026  
**MF:** C<sub>21</sub>H<sub>33</sub>N<sub>3</sub>O • C<sub>7</sub>H<sub>8</sub>O<sub>3</sub>S  
**FW:** 515.7  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Sitamaquine (tosylate) is supplied as a solid. A stock solution may be made by dissolving the sitamaquine (tosylate) in the solvent of choice, which should be purged with an inert gas. Sitamaquine (tosylate) is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

### Description

Sitamaquine is an antileishmanial agent.<sup>1</sup> It is active against *L. donovani*, *L. infantum*, *L. mexicana*, *L. braziliensis*, and *L. tropica* (EC<sub>50</sub>s = 9.5-19.8 μM). It inhibits mitochondrial complex II, also known as succinate dehydrogenase (SDH), in a cell-free assay when used at concentrations ranging from 10 to 200 μM.<sup>2</sup> Sitamaquine (100 μM) increases intracellular levels of reactive oxygen species (ROS) and decreases intracellular ATP levels, as well as induces phosphatidylserine externalization, chromatin fragmentation, and depolarization of the mitochondrial membrane potential, markers of apoptosis, in *L. donovani* promastigotes.

### References

1. López-Martín, C., Pérez-Victoria, J.M., Carvalho, L., *et al.* Sitamaquine sensitivity in *Leishmania* species is not mediated by drug accumulation in acidocalcisomes. *Antimicrob. Agents Chemother.* **52(11)**, 4030-4036 (2008).
2. Carvalho, L.J.M., Luque-Ortega, J.R., López-Martín, C., *et al.* The 8-aminoquinoline analogue sitamaquine causes oxidative stress in *Leishmania donovani* promastigotes by targeting succinate dehydrogenase. *Antimicrob. Agents Chemother.* **55(9)**, 4204-4210 (2011).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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