

## Datasheet

### Atovaquone

Product Name	Atovaquone
Catalogue Number	BSV-S3079
Chemical Formula	C <sub>22</sub> H <sub>19</sub> ClO <sub>3</sub>
Function	Anti-infection chemical
CAS No.:	95233-18-4

### Description:

Atovaquone is a medication used to treat or prevent for pneumocystis pneumonia, toxoplasmosis, malaria, and babesia.

### Product Details:

**Target:** pneumocystis pneumonia, toxoplasmosis, malaria, and babesia

**Chemical name:** 1,4-Naphthalenedione, 2-[trans-4-(4-chlorophenyl)cyclohexyl]-3-hydroxy-

**Formula:** C<sub>22</sub>H<sub>19</sub>ClO<sub>3</sub>

**Molecular weight:** 366.84

**Purity:** 99.9 % (HPLC)

**Solubility:** 5 mg/mL (DMSO)

**Storage:** 3 years -20°C powder, 2 years -80°C in solvent

**Regulatory/ Restrictions:** For laboratory use only.

### Preparing stock solutions:

Concentration/ Mass	1 mg	5 mg	10 mg
1 mM	2.7260 mL	13.6299 mL	27.2598 mL
5 mM	0.5452 mL	2.7260 mL	5.4520 mL
10 mM	0.2726 mL	1.3630 mL	2.7260 mL

**Biological activity:**

**In vitro:**

Atovaquone (atavaquone) is a chemical compound that belongs to the class of naphthalenes. Atovaquone is a hydroxy-1,4-naphthoquinone, an analog of ubiquinone, with antipneumocystic activity.<sup>[1]</sup> Atovaquone is an anti-protozoal mitochondrial electron transport inhibitor; Antimalarial; Antipneumocystic, and has also been used to treat toxoplasmosis. It acts by inhibiting the cytochrome bc(1) complex via interactions with the Rieske iron-sulfur protein and cytochrome b in the ubiquinol oxidation pocket.<sup>[2]</sup>

**In vivo:**

Atovaquone is a unique naphthoquinone with broad-spectrum antiprotozoal activity. It is effective for the treatment and prevention of *Pneumocystis carinii* pneumonia (PCP), it is effective in combination with proguanil for the treatment and prevention of malaria, and it is effective in combination with azithromycin for the treatment of babesiosis.<sup>[3]</sup>

**References:**

[\[1\] Looareesuwan S, et al. \*Am J Trop Med Hyg\*, 1996, 54\(1\), 62-66.](#)

[\[2\] Kessl JJ, et al. \*J Biol Chem\*, 2003, 278\(33\), 31312-31318.](#)

[\[3\] Aaron L, et al. \*Antimicrob Agents Chemother\*, 2002, 46\(5\), 1163-1173.](#)