

**Product Name:** Artemether

**Catalog No.:** 6818

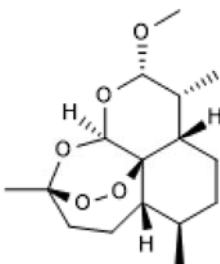
**Batch No.:** 1

CAS Number: 71963-77-4

IUPAC Name: (3*R*,5*aS*,6*R*,8*aS*,9*R*,10*S*,12*R*,12*aR*)-Decahydro-10-methoxy-3,6,9-trimethyl-3,12-epoxy-12*H*-pyrano[4,3-*j*]-1,2-benzodioxepin

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>26</sub>O<sub>5</sub>  
**Batch Molecular Weight:** 298.37  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	64.41	8.78	
Found	64.41	8.83	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Antimalarial. Prevents cerebral malaria in *Plasmodium berghei* infected mice. Exhibits synergistic effects with Methylene Blue (Cat. No. 3213) against *P. falciparum* in vitro. Inhibits neuroinflammation in neuronal/microglial cell co-cultures via induction of Nrf2 expression.

**Physical and Chemical Properties:**

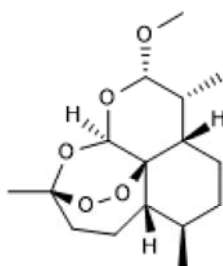
Batch Molecular Formula: C<sub>16</sub>H<sub>26</sub>O<sub>5</sub>

Batch Molecular Weight: 298.37

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Okorji et al** (2015) Antimalarial drug artemether inhibits neuroinflammation in BV2 microglia through Nrf2-dependent mechanisms. *Mol.Neurobiol.* **53** (6429). PMID: 26607631.

**Akoachere et al** (2005) *In vitro* assessment of methylene blue on chloroquine-sensitive and -resistant *Plasmodium falciparum* strains reveals synergistic action with artemisinins. *Antimicrob.Agents Chemother.* **49** 4592. PMID: 16251300.

**Prada et al** (1996) Upregulation of reactive oxygen and nitrogen intermediates in *Plasmodium berghei* infected mice after rescue therapy with chloroquine or artemether. *J.Antimicrob.Chemother.* **38** 95. PMID: 8858461.

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