

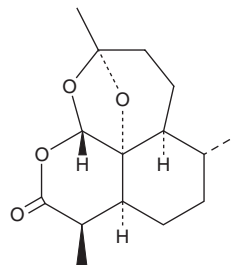
# PRODUCT INFORMATION



## 2-deoxy Artemisinin

Item No. 20426

**CAS Registry No.:** 72826-63-2  
**Formal Name:** (3R,3aS,6R,6aS,9S,10aS,10bR)-octahydro-3,6,9-trimethyl-10aH-9,10b-epoxypyran[4,3,2-jk][2]benzoxepin-2(3H)-one  
**Synonym:** Deoxyqinghaosu  
**MF:** C<sub>15</sub>H<sub>22</sub>O<sub>4</sub>  
**FW:** 266.3  
**Purity:** ≥98%  
**Supplied as:** A crystalline 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

2-deoxy Artemisinin is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-deoxy artemisinin in the solvent of choice, which should be purged with an inert gas. 2-deoxy Artemisinin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-deoxy artemisinin in these solvents is approximately 16, 10, and 20 mg/ml, respectively.

2-deoxy Artemisinin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2-deoxy artemisinin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 2-deoxy Artemisinin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

2-deoxy Artemisinin is an inactive metabolite of the antimalarial and anticancer agent artemisinin (Item No. 11816).<sup>1,2</sup> Unlike artemisinin, 2-deoxy artemisinin is not active against the *P. falciparum* D-6 Sierra Leone clone (IC<sub>50</sub> = 761.58 ng/ml).<sup>1</sup>

### References

1. Brossi, A., Venugopalan, B., Dominguez Gerpe, L., *et al.* Arteether, a new antimalarial drug: Synthesis and antimalarial properties. *J. Med. Chem.* **31**(3), 645-650 (1988).
2. Avery, M.A., Gao, F., Chong, W.K.M., *et al.* Structure-activity relationships of the antimalarial agent artemisinin. 1. Synthesis and comparative molecular field analysis of C-9 analogs of artemisinin and 10-deoxoartemisinin. *J. Med. Chem.* **36**(26), 4264-4275 (1993).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/10/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM