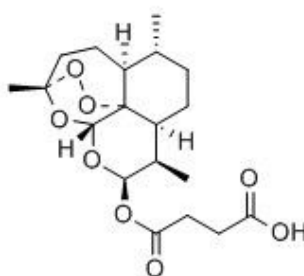


Artesunate Datasheet

4th Edition (Revised in July, 2016)**[Product Information]****Name:** Artesunate**Catalog No.:** CFN90313**Cas No.:** 88495-63-0**Purity:** >=98%**M.F:** C₁₉H₂₈O₈**M.W:** 384.42**Physical Description:** Powder

Synonyms: Artemisinin monosuccinate; Artesunic Acid; Arteannuinum; Arteannuinum succinate; (3R,5aS,6R,8aS,9R,10S,12R,12aR)-Decahydro-3,6,9-trimethyl-3,12-epoxy-12H-pyrano(4,3-j)-1,2-benzodioxepin-10-yl-hydrogen-succinate; 4-Oxo-4-[[[(3R,5aS,6R,8aS,9R,10S,12R,12aR)-3,6,9-trimethyldecahydro-3,12-epoxy[1,2]dioxepino[4,3-i]isochromen-10-yl]oxy}butanoic acid.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The herbs of *Artemisia annua* L.

[Biological Activity or Inhibitors]

Artesunate (ART) is a semi-synthetic derivative of artemisinin, the active principle of the Chinese herb *Artemisia annua*, ART reveals remarkable activity against otherwise multidrug-resistant *Plasmodium falciparum* and *P. vivax* malaria, ART is most active against leukemia and colon cancer cell lines (mean GI50 values: 1.11±0.56 µM and 2.13±0.74 µM, respectively), non-small cell lung cancer cell lines show the highest mean GI50 value (25.62±14.95 µM), ART may be a promising novel candidate for cancer chemotherapy.^[1]

In the treatment of severe malaria, intravenous artesunate is more rapidly acting than intravenous quinine in terms of parasite clearance, is safer, and is simpler to administer, treatment with artesunate is well tolerated, thus, artesunate should become the treatment of choice for severe *falciparum* malaria in adults.^[2]

Artesunate is the known low toxicity, ART may be a promising angiogenesis inhibitor. ^[3]

Artesunate has antiviral activities, includes the inhibition of certain viruses, such as human cytomegalovirus and other members of the Herpesviridae family (e.g., herpes simplex virus type 1 and Epstein-Barr virus), hepatitis B virus, hepatitis C virus, and bovine viral diarrhea virus.^[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[5]

Mobile phase: Acetonitrile- 1 M Sodium acetate buffer (pH 3 adjusted with o-phosphoric acid) = 70: 30 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 220 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Efferth T, Dunstan H, Sauerbrey A, *et al. Int. J. Oncol.*, 2001, 18(4):767-73.
- [2] Dondorp A, Nosten F, Stepniewska K, *et al. Lancet*, 2005, 366(9487):717-25.
- [3] Chen H H, Zhou H J, Wu G D, *et al. Pharmacology*, 2004, 71(1):1-9.
- [4] Efferth T. *Clin. Infect. Dis.*, 2008, 47(6):804-11.
- [5] Ranher S S, Gandhi S V, Kadukar S S, *et al. J. Anal. Chem.*, 2010, 65(5):507-10.

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