

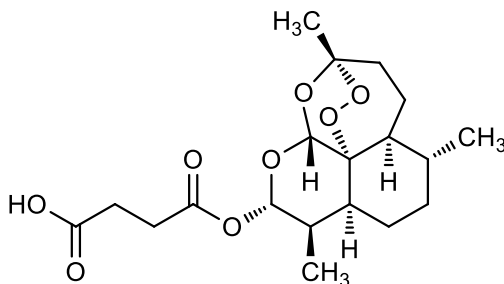
Catalog # 10-2411

Artesunate

CAS# 88495-63-0

Succinyl dihydroartemisinin

Lot # X101072



A semisynthetic derivative of the natural product artemisinin which is clinically useful for treatment of malaria and other parasitic diseases. Depolarizes mitochondrial the membrane via generation of reactive oxygen species which disrupt the electron transport chain.¹ Generation of mitochondrial ROS is dependent on RIP1.² Inhibits TNF α -induced production of proinflammatory cytokines in human RA fibroblast-like synoviocytes.³ Displays cytotoxicity against a variety of cancer cells⁴ and cancer stem cells⁵.

- 1) Li *et al.* (2005), *Yeast model uncovers dual roles of mitochondria in action of artemisinin*; PLoS Genet., **1**(3) e36
- 2) Chauhan *et al.* (2017), *RIP1-dependent reactive oxygen species production executes artesunate-induced cell death in renal carcinoma Caki cells*; Mol. Cell. Biochem., **435** 15
- 3) Xu *et al.* (2007), *Anti-malarial agent artesunate inhibits TNF-alpha-induced production of proinflammatory cytokines via inhibition of NF-kappaB and PI3 kinase/Akt signal pathway in human rheumatoid arthritis fibroblast-like synoviocytes*; Rheumatology (Oxford), **46** 920
- 4) Ghantous *et al.* (2010), *What made sesquiterpene lactones reach cancer clinical trials?*; Drug. Disc. Today, **15** 668
- 5) Subedi *et al.* (2016), *High-throughput screening identifies artesunate as selective inhibitor of cancer stemness: Involvement of mitochondrial metabolism*; Biochem. Biophys. Res. Commun., **477** 737

PHYSICAL DATA

Molecular Weight:	384.42
Molecular Formula:	C ₁₉ H ₂₈ O ₈
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml) or Ethanol (up to 20 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

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