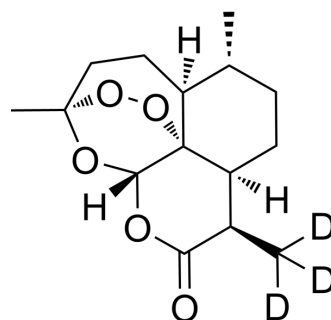


Artemisinin-d₃

Cat. No.:	HY-B0094S
CAS No.:	176652-07-6
Molecular Formula:	C ₁₅ H ₁₉ D ₃ O ₅
Molecular Weight:	285.35
Target:	Akt; Ferroptosis; HCV; Parasite
Pathway:	PI3K/Akt/mTOR; Apoptosis; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Artemisinin-d ₃ is the deuterium labeled Artemisinin. Artemisinin (Qinghaosu), a sesquiterpene lactone, is an anti-malarial agent isolated from the aerial parts of <i>Artemisia annua</i> L. plants[1]. Artemisinin inhibits AKT signaling pathway by decreasing pAKT in a dose-dependent manner. Artemisinin reduces cancer cell proliferation, migration, invasion, tumorigenesis and metastasis and has neuroprotective effects[2].
IC₅₀ & Target	Plasmodium
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216. ;Lin SP, et al. Artemisinin Prevents Glutamate-Induced Neuronal Cell Death Via Akt Pathway Activation. *Front Cell Neurosci.* 2018 Apr 20;12:108.;Zeng Z, et al. Artemisinin protects PC12 cells against β-amyloid-induced apoptosis through activation of the ERK1/2 signaling pathway. *Redox Biol.* 2017 Apr 4;12:625-633.
- [2]. Shao-Peng Lin, et al. Artemisinin Prevents Glutamate-Induced Neuronal Cell Death Via Akt Pathway Activation. *Front Cell Neurosci.* 2018 Apr 20;12:108.;Zeng Z,
- [3]. Zhiwen Zeng, et al. Artemisinin protects PC12 cells against β-amyloid-induced apoptosis through activation of the ERK1/2 signaling pathway. *Redox Biol.* 2017 Apr 4;12:625-633.
- [4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.

Caution: Product has not been fully validated for medical applications. For research use only.

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