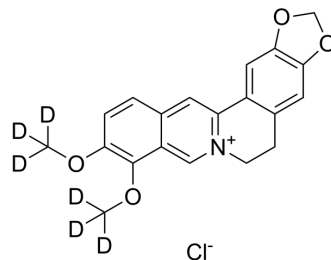


Berberine-d₆ chloride

Cat. No.:	HY-18258S
Molecular Formula:	C ₂₀ H ₁₂ D ₆ ClNO ₄
Molecular Weight:	377.85
Target:	Topoisomerase; Autophagy; Bacterial; Reactive Oxygen Species; Antibiotic; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Cell Cycle/DNA Damage; Autophagy; Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Berberine-d ₆ (chloride) is the deuterium labeled Berberine chloride. Berberine chloride is an alkaloid that acts as an antibiotic. Berberine chloride induces reactive oxygen species (ROS) generation and inhibits DNA topoisomerase. Antineoplastic properties[1].
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.
- [2]. Cai Y, et al. Berberine inhibits the growth of human colorectal adenocarcinoma in vitro and in vivo. *J Nat Med.* 2014 Jan;68(1):53-62.

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

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