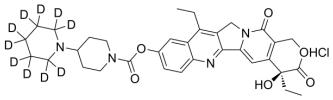
Irinotecan-d_{10} hydrochloride

Cat. No.:	HY-16562S1
CAS No.:	718612-62-5
Molecular Formula:	$C_{33}H_{29}D_{10}ClN_4O_6$
Molecular Weight:	633.2
Target:	Topoisomerase; Autophagy; Isotope-Labeled Compounds
Pathway:	Cell Cycle/DNA Damage; Autophagy; Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	Irinotecan-d_{10} (hydrochloride) is the deuterium labeled Irinotecan. Irinotecan ((+)-Irinotecan) is a topoisomerase I inhibitor, preventing religation of the DNA strand by binding to topoisomerase I-DNA complex[1][2].
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

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[3]. Pavillard V, et al. Determinants of the cytotoxicity of irinotecan in two human colorectal tumor cell lines. Cancer Chemother Pharmacol. 2002 Apr;49(4):329-35. Epub 2002 Jan 30.

[4]. Allegrini G, et al. Thrombospondin-1 plus irinotecan: a novel antiangiogenic-chemotherapeutic combination that inhibits the growth of advanced human colon tumor xenografts in mice. Cancer Chemother Pharmacol. 2004 Mar;53(3):261-6. Epub 2003 Dec 5.

[5]. Dela Cruz FS, et al. A case study of an integrative genomic and experimental therapeutic approach for rare tumors: identification of vulnerabilities in a pediatric poorly differentiated carcinoma. Genome Med. 2016 Oct 31;8(1):116.

[6]. Huang MY, et al. Chemotherapeutic agent CPT-11 eliminates peritoneal resident macrophages by inducing apoptosis. Apoptosis. 2016 Feb;21(2):130-42.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA