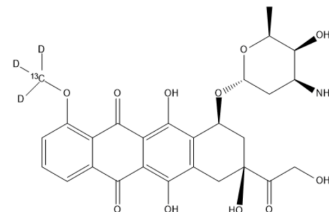


Doxorubicin-13C,d3

Cat. No.:	HY-15142AS
Molecular Formula:	$C_{26}^{13}CH_{26}D_3NO_{11}$
Molecular Weight:	547.53
Target:	Endogenous Metabolite; Antibiotic
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Doxorubicin-13C,d3 is the deuterium and 13C labeled Doxorubicin. Doxorubicin (Hydroxydaunorubicin), a cytotoxic anthracycline antibiotic, is an anti-cancer chemotherapy agent. Doxorubicin inhibits topoisomerase II with an IC50 of 2.67 μ M, thus stopping DN
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 Feb;53(2):211-216.
- [2]. Nitiss JL, et al. Targeting DNA topoisomerase II in cancer chemotherapy. *Nat Rev Cancer.* 2009 May;9(5):338-50.; Rhee HK, et al. Synthesis, cytotoxicity, and DNA topoisomerase II inhibitory activity of benzofuroquinolinediones. *Bioorg Med Chem.* 2007 Feb 15;1

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

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