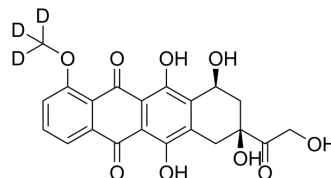


## Doxorubicinone-d<sub>3</sub>

Cat. No.:	HY-121309S
Molecular Formula:	C <sub>21</sub> H <sub>15</sub> D <sub>3</sub> O <sub>9</sub>
Molecular Weight:	417.38
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Doxorubicinone-d<sub>3</sub> is the deuterium labeled Doxorubicinone. Doxorubicinone is a metabolite of an anti-cancer chemotherapy agent Doxorubicin[1]. Doxorubicin is a potent human DNA topoisomerase I and topoisomerase II inhibitor with IC50s of 0.8 μM and 2.67 μM, respectively.

#### 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<sup>[1]</sup>.  
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]. M Joerger, et al. Pharmacokinetics of low-dose doxorubicin and metabolites in patients with AIDS-related Kaposi sarcoma. *Cancer Chemother Pharmacol*. 2005 May;55(5):488-96.

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

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