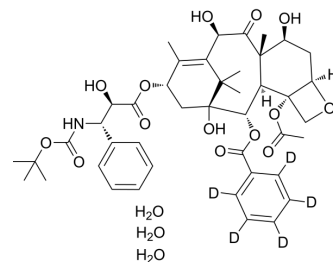


Docetaxel-d₅ trihydrate

Cat. No.:	HY-B0011AS
Molecular Formula:	C ₄₃ H ₅₄ D ₅ NO ₁₇
Molecular Weight:	866.96
Target:	Microtubule/Tubulin; Apoptosis; Isotope-Labeled Compounds
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Apoptosis; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Docetaxel-d ₅ (trihydrate) is the deuterium labeled Docetaxel (Trihydrate). Docetaxel Trihydrate (RP-56976 Trihydrate) is an antineoplastic agent and inhibits microtubule depolymerization with an IC ₅₀ value of 0.2 μM[1]. Docetaxel Trihydrate is a semisynthetic analog of taxol and attenuates the effects of bcl-2 and bcl-xL gene expression. Docetaxel Trihydrate arrests the cell cycle at G2/M and leads to cell apoptosis[1][3].
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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- [2]. Attia RT, et al. The chemomodulatory effects of glufosfamide on docetaxel cytotoxicity in prostate cancer cells. *PeerJ*. 2016 Jun 29;4:e2168.
- [3]. Che CL, et al. DNA microarray reveals different pathways responding to paclitaxel and docetaxel in non-small cell lung cancer cell line. *Int J Clin Exp Pathol*. 2013 Jul 15;6(8):1538-48.
- [4]. Obi-loka Y, et al. Involvement of Wee1 in the circadian rhythm dependent intestinal damage induced by docetaxel. *J Pharmacol Exp Ther*. 2013 Oct;347(1):242-8.
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Caution: Product has not been fully validated for medical applications. For research use only.

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