

PRODUCT INFORMATION



Docetaxel-d₉ Item No. 22094

CAS Registry No.: 940867-25-4
Formal Name: (αR,βS)-β-[[[(1,1-dimethylethoxy)carbonyl]amino]-α-hydroxy-benzenepropanoic acid, β-[[[1,1-di(methyl-d₃)ethoxy-2,2,2-d₃]carbonyl]amino]-α-hydroxy-12b-(acetyloxy)-12-(benzoyloxy)-2aR,3,4S,4aS,5,6R,9S,10,11S,12S,12aR,12bS-dodecahydro-4,6,11-trihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester

Synonyms: DTX-d₉, Taxotel-d₉

MF: C₄₃H₄₄D₉NO₁₄

FW: 816.9

Chemical Purity: ≥98% (Docetaxel)

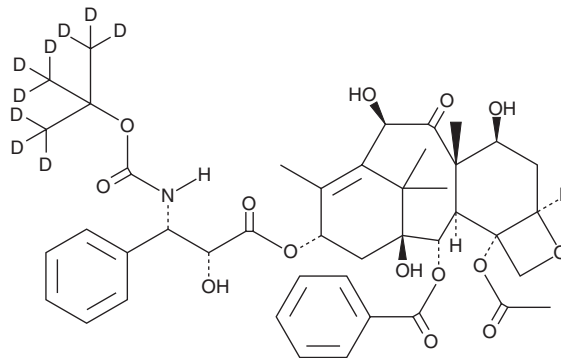
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Docetaxel-d₉ is intended for use as an internal standard for the quantification of docetaxel (Item No. 11637) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Docetaxel-d₉ is supplied as a solid. Docetaxel-d₉ is slightly soluble in chloroform and methanol.

Description

Docetaxel is a microtubule-stabilizing agent and a semisynthetic derivative of paclitaxel (Item No. 10461).¹ It promotes microtubule assembly in a cell-free assay when used at a concentration of 20 μM and is cytotoxic to J774.2 cells (EC₅₀ = 0.05 μM).² *In vivo*, docetaxel inhibits tumor growth in several cancer models, including B16 murine melanoma and P388 murine leukemia models.¹ Formulations containing docetaxel have been used in the treatment of head and neck, breast, and non-small cell lung cancer, gastric adenocarcinoma, and castration-resistant prostate cancer.

References

1. Bissery, M. C., Guenard, D., Gureritte-Voegelein, F. *et al.* Experimental antitumor activity of taxotere (RP 56976, NSC 628503), a taxol analogue. *Cancer Research* **51(18)**, 4845-4852 (1991).
2. Swindell, C.S., Heerding, J.M., Krauss, N.E., *et al.* Characterization of the taxol structure-activity profile for the locus of the A-ring side chain. *Bioorg. Med. Chem. Lett.* **4(12)**, 1531-1536 (1994).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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