

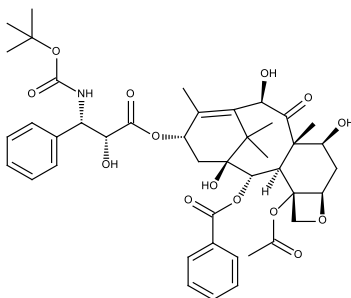
Catalog # 10-2286

Docetaxel

CAS# 114977-28-5

Taxotere, RP-56976, NSC-628503

Lot # X103156



Antimitotic chemotherapeutic which inhibits via reversible high-affinity binding to microtubules¹. Induces apoptosis in a variety of cancer cell lines² however, tumor cells can quickly develop resistance to docetaxel via several mechanisms^{3,4}. Can act in synergy with a variety of other anticancer agents including kinase inhibitors^{5,6}

- 1) Fabbri *et al.* (2008), *Mitotic catastrophe and apoptosis induced by docetaxel in hormone-refractory prostate cancer cells*; J. Cell Physiol, **217** 494.
- 2) Dosso and Berthold (2008), *Docetaxel in the management of prostate cancer: current standard of care and future directions* ; Expert Opin. Pharmacother, **9** 1969
- 3) Homma *et al.* (2008), *RPN2 gene confers docetaxel resistance in breast cancer*; Nat. Med., **14** 939
- 4) Kars *et al.* (2008), *Reversal of Multidrug Resistance by Synthetic and Natural Compounds in Drug-Resistant MCF-7 Cell Lines* Chemotherapy, **54** 194
- 5) Wallin *et al.* (2012), *GDC-0941, A Novel Class I Selective PI3K Inhibitor, Enhances the Efficacy of Docetaxel in Human Breast Cancer Models by Increasing Cell Death In vitro and In Vivo*; Clin Cancer Res., May 14: Epub ahead of print.
- 6) Heinemann *et al.* (2011), *Synergistic effects of oncolytic reovirus and docetaxel chemotherapy in prostate cancer*; BMC Cancer, **11** 221

PHYSICAL DATA

Molecular Weight:	807.90
Molecular Formula:	C ₄₃ H ₅₃ NO ₁₄
Purity:	>98% by HPLC
Solubility:	DMSO (up to 25 mg/ml) or ethanol (up to 25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to one year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months

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