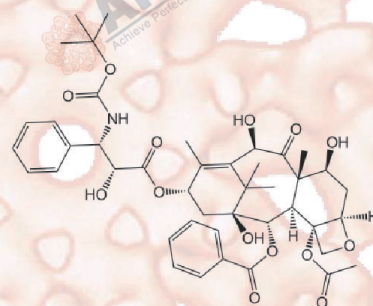


Product Data Sheet

Docetaxel

Cat. No.:	A4394
CAS No.:	114977-28-5
Formula:	C ₄₃ H ₅₃ NO ₁₄
M.Wt:	807.88
Synonyms:	Taxotere, Docetaxel anhydrous, Trihydrate
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/Checkpoint
Storage:	Store at -20°C



Solvent & Solubility

≥40.4 mg/mL in DMSO; insoluble in H₂O; ≥94.4 mg/mL in EtOH

In Vitro

	Solvent	Mass Concentration	Mass		
			1mg	5mg	10mg
Preparing Stock Solutions		1 mM	1.2378 mL	6.1890 mL	12.3781 mL
		5 mM	0.2476 mL	1.2378 mL	2.4756 mL
		10 mM	0.1238 mL	0.6189 mL	1.2378 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Microtubulin disassembly inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Nine human gastric cancer cell lines
Preparation method:	The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	1.2 μM

	Applications:	The cytotoxic effect of Docetaxel was relatively greater than that of Paclitaxel in six of the nine cells. The effect of Docetaxel and Paclitaxel on MM-7 and ST-SA-I cells was less than on the other seven cultured cells.
In Vivo	Animal experiment	
	Animal models:	Mice bearing human gastric cancer xenografts (MKN-28, MKN-45 and KKLS)
	Dosage form:	3.75, 7.5, 15 or 22 mg/kg; i.v.; three times within a 4-day interval
	Applications:	Docetaxel dose-dependently inhibited tumour growth. At the doses of 15 and 22 mg/kg, Docetaxel induced complete tumor regression in all mice.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Zhang Y, Xia F, et al. "miR-135b-5p enhances doxorubicin-sensitivity of breast cancer cells through targeting anterior gradient 2." J Exp Clin Cancer Res. 2019 Jan 21;38(1):26.PMID:30665445
2. Li Q, Deng Q, et al. "Linking prostate cancer cell AR heterogeneity to distinct castration and enzalutamide responses." Nat Commun. 2018 Sep 6;9(1):3600.PMID:30190514
3. Zhou XW, Xia YZ, et al. "Tomentodione M sensitizes multidrug resistant cancer cells by decreasing P-glycoprotein via inhibition of p38 MAPK signaling. Oncotarget." 2017 Oct 19;8(60):101965-101983.PMID:29254218

See more customer validations on www.apexbt.com.

References

- [1]. Tanaka M, Obata T, Sasaki T. Evaluation of antitumour effects of docetaxel (Taxotere) on human gastric cancers in vitro and in vivo. Eur J Cancer. 1996 Feb;32A(2):226-30.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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