

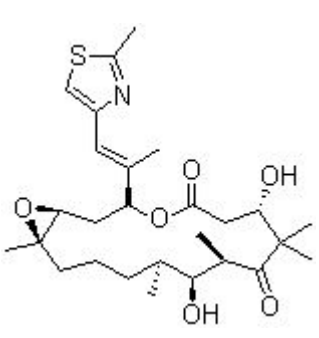


Product Introduction

Epothilone B (EPO906, Patupilone)

Epothilone B is a Taxol-like **microtubule**-stabilizing agent with **EC0.01** of 1.8 μM . Phase 2.

Technical Data:

Molecular Weight (MW):	507.68	
Formula:	C ₂₇ H ₄₁ N ₀ S ₁ O ₆	
Solubility (25°C)	DMSO 102 mg/mL	
* <1 mg/ml means slightly soluble or insoluble:	Water <1 mg/mL	
	Ethanol 102 mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder 6 months-80°C in DMSO	
CAS No.:	152044-54-7	

Biological Activity

Epothilone B shows better activity than Epothilone A. The EC_{0.01} of Epothilone B is 1.8 μM . Epothilone B potently inhibits cell proliferation in HCT116 cells, with IC₅₀ of 0.8 nM. [1] Epothilone B induces mitotic arrest and displays cytotoxicity in KB3-1, KBV-1, HeLa, and Hs578T cells, with IC₅₀ of 3 nM to 92 nM. Epothilone B competes with Taxol in binding to microtubules, with IC₅₀ of 3.3 μM . [2] In MCF-7 cells overexpressing GFP- α -tubulin, Epothilone B (3.5 nM) efficiently blocks microtubule dynamics. Meanwhile, Epothilone B induces mitotic arrest with IC₅₀ of 3.5 nM. [3] In multiple myeloma (MM) cells, including RPMI 8226, U266, MM.1S, LR5, and MR20, Epothilone B directly suppresses proliferation with IC₅₀ of 1

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nM to 10 nM. Similarly, Epothilone B (10 nM) also induces cell cycle arrest and apoptosis. [4] A recent study reveals that, in ovarian cancer Hey cells, Epothilone B (5 nM–100 nM) enhances surface epithelial cell adhesion antigen (EpCAM), without affecting the transcription or the total cellular level of EpCAM. [5] In a mouse xenograft model of RPMI 8226 cells, Epothilone B (2.5 mg/kg–4 mg/kg) prolongs survival and suppresses tumor growth. [4] Similarly, in mouse xenograft models of prostate cancer cells, including DU145 and PC3, Epothilone B at the same dose also inhibits tumor growth. [6]

References

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