

# Ixabepilone

Catalog No: tcsc0551



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

219989-84-1

**Formula:**

$C_{27}H_{42}N_2O_5S$

**Pathway:**

Cell Cycle/DNA Damage;Cytoskeleton

**Target:**

Microtubule/Tubulin;Microtubule/Tubulin

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 125$  mg/mL (246.69 mM)

**Alternative Names:**

Azaepothilone B;BMS 247550;BMS 247550-1

**Observed Molecular Weight:**

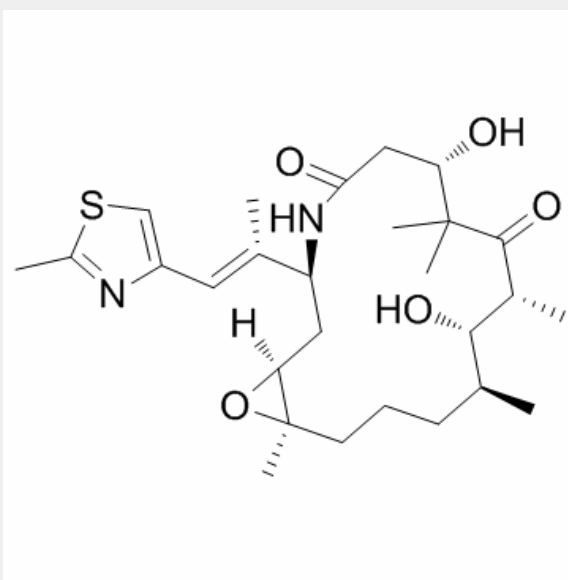
506.7

## Product Description

Ixabepilone is an orally bioavailable **microtubule** inhibitor, which binds to tubulin and promotes tubulin polymerization and microtubule stabilization, thereby arrests cells in the G2-M phase of the cell cycle and induces tumor cell apoptosis.

**In Vitro:** BMS-247550 is a highly potent cytotoxic agent capable of killing cancer cells at low nanomolar concentrations and retains its antineoplastic activity against human cancers that are naturally insensitive to paclitaxel or that have developed resistance to paclitaxel<sup>[1]</sup>.

**In Vivo:** BMS-247550 demonstrates antitumor activity that is superior to paclitaxel in both paclitaxel-resistant and -sensitive tumors. BMS-247550 is more efficacious than paclitaxel in all five paclitaxel-resistant tumors evaluated in this study (four human and one murine): the clinically derived paclitaxel resistant Pat-7 ovarian carcinoma, the A2780Tax ovarian carcinoma that is resistant to paclitaxel because of tubulin mutations, the HCT116/VM46 MDR colon carcinoma, the clinically derived paclitaxel-resistant Pat-21 breast carcinoma, and the murine fibrosarcoma M5076. Against three paclitaxel-sensitive human tumor xenografts, BMS-247550 produces antitumor activity equivalent to paclitaxel: A2780 human ovarian carcinoma, HCT116, and LS174T human colon carcinoma [1].



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