

Epothilone D

Catalog No: tcsc0655



Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 25mg



Specifications

CAS No:

189453-10-9

Formula:

$C_{27}H_{41}NO_5S$

Pathway:

Cell Cycle/DNA Damage;Cytoskeleton

Target:

Microtubule/Tubulin;Microtubule/Tubulin

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 320 mg/mL (650.83 mM)

Alternative Names:

KOS 862

Observed Molecular Weight:

491.68

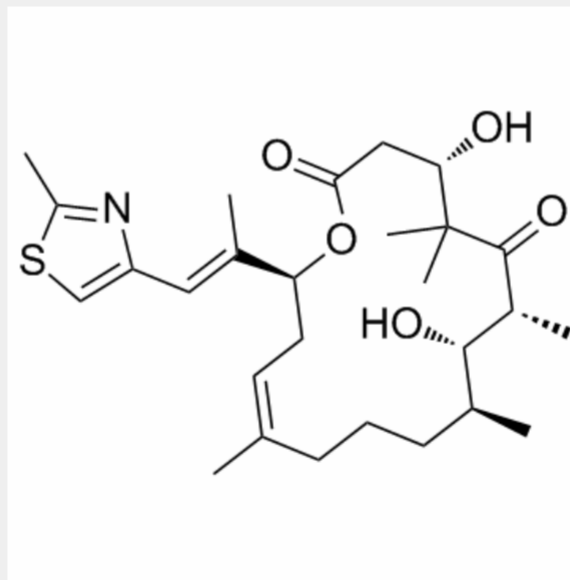
Product Description

Epothilone D (KOS 862) is a potent **microtubule** stabilizer.

IC50 & Target: Microtubule/Tubulin^[1]

In Vitro: Epothilone D (KOS-862) is a more potent microtubule stabilizer in vitro than epothilone A or B. In vitro, Epothilone D has shown potent cytotoxicity in a panel of human tumor cell lines, with similar potency to paclitaxel. Epothilone D also shows a definite advantage over paclitaxel in drug-resistant cell lines, and retained its cytotoxicity against a multidrug resistant cell line over-expressing P-glycoprotein^[1]. Epothilone D (EpoD) is a microtubules (MTs)-stabilizing agent^[2].

In Vivo: To evaluate whether Epothilone D (EpoD) improves MT and axonal function in PS19 mice, groups of 3-month old male PS19 mice received weekly i.p. injections of vehicle or Epothilone D (EpoD) (1 mg/kg or 3 mg/kg) for a total of 3 months. In addition, 3-month old non-Tg littermates received 3 mg/kg Epothilone D (EpoD) or vehicle. The 3 mg/kg Epothilone D (EpoD) dose corresponds to ~10-fold less than that used in a Phase II clinical study, which should minimize side-effects such as neutropenia that are observed with MT-stabilizing drugs in human subjects. PS19 and WT mice that receive Epothilone D (EpoD) show no signs of drug intolerance. Indeed, all drug-treated mice exhibited weight gain that is indistinguishable from vehicle-treated animals. Likewise, relative organ weights are similar in vehicle- and Epothilone D (EpoD)-treated mice. The motor performance of Epothilone D (EpoD)-treated mice, assessed using a standard rotarod test, is not significantly different from vehicle-treated cohorts. Finally, although there is minor group-to-group variability, there are no significant differences in white blood cell counts or neutrophil content between any of the treatment cohorts. Thus, the low doses of Epothilone D (EpoD) utilized in these studies appeared to be well tolerated^[2].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!