



LKT Laboratories, Inc.

Epothilone B

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Product Information

Product ID E6257

CAS No. 152044-54-7

Chemical Name

Synonym

Formula C₂₇H₄₁NO₆S

Formula Wt. 507.68

Melting Point

Purity ≥98%

Solubility Soluble in DMSO

(≥102mg/mL) and

Ethanol (≥102mg/mL).

Practically insoluble in

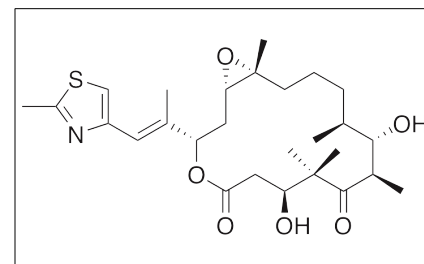
Water (<1mg/mL)

Store Temp -20°C

Ship Temp Ambient

Description

Epothilone is an anticancer chemotherapeutic and neuroprotective compound that acts as an antimetabolic compound; it binds the taxane pocket of β-tubulin, using side chains to induce formation of a short helix and preventing microtubule depolymerization. Epothilone displays activity against lung cancer and prostate cancer in clinical trials and may show benefit in treatment of neurodegenerative diseases such as Alzheimer's disease. Additionally, epothilone B inhibits glioblastoma cell migration. In animal models of spinal cord injury, epothilone B decreases scarring, stimulates axonal regeneration, and improves motor deficits. Typically, the degree of chemotherapeutic activity of the three epothilone subtypes follows the alphabet, where Epo A > Epo B > Epo D.



Bulk quantities available upon request

Product ID	Size
E6257	1 mg
E6257	5 mg
E6257	10 mg
E6257	25 mg

References Ruschel J, Hellal F, Flynn KC, et al. Systemic administration of epothilone B promotes axon regeneration after spinal cord injury. *Science*. 2015 Mar 12. [Epub ahead of print]. PMID: 25765066.

Prota AE, Bargsten K, Zurwerra D, et al. Molecular mechanism of action of microtubule-stabilizing anticancer agents. *Science*. 2013 Feb 1;339(6119):587-90. PMID: 23287720.

Entwistle RA, Rizk RS, Cheng DM, et al. Differentiating between models of epothilone binding to microtubules using tubulin mutagenesis, cytotoxicity, and molecular modeling. *ChemMedChem*. 2012 Sep;7(9):1580-6. PMID: 22807375.

Pagano A, Honoré S, Mohan R, et al. Epothilone B inhibits migration of glioblastoma cells by inducing microtubule catastrophes and affecting EB1 accumulation at microtubule plus ends. *Biochem Pharmacol*. 2012 Aug 15;84(4):432-43. PMID: 22634050.

Edelman MJ, Shvartsbeyn M. Epothilones in development for non-small-cell lung cancer: novel anti-tubulin agents with the potential to overcome taxane resistance. *Clin Lung Cancer*. 2012 May;13(3):171-80. PMID: 22133291

Kelly WK. Epothilones in prostate cancer. *Urol Oncol*. 2011 Jul-Aug;29(4):358-65. PMID: 19914096.

Khrapunovich-Baine M, Menon V, Yang CP, et al. Hallmarks of molecular action of microtubule stabilizing agents: effects of epothilone B, ixabepilone, peloruside A, and laulimalide on microtubule conformation. *J Biol Chem*. 2011 Apr 1;286(13):11765-78. PMID: 21245138.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.