



LKT Laboratories, Inc.

## Epothilone A

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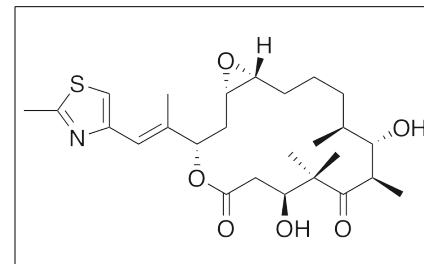
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### Product Information



**Bulk quantities available upon request**

Product ID	Size
E6256	1 mg
E6256	5 mg
E6256	10 mg
E6256	25 mg

Product ID E6256  
CAS No. 152044-53-6

Chemical Name

Synonym

Formula  $C_{26}H_{39}NO_6S$

Formula Wt. 493.66

Melting Point

Purity  $\geq 95\%$

Solubility Soluble in DMSO  
( $\geq 99\text{mg/mL}$ ) and Ethanol  
( $\geq 99\text{mg/mL}$ ). Practically  
insoluble in Water  
( $< 1\text{mg/mL}$ )

Store Temp  $-20^\circ\text{C}$

Ship Temp Ambient

**Description** Epothilone is an anticancer chemotherapeutic that acts as an anti-mitotic compound; it binds the taxane pocket of  $\beta$ -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. Typically, the degree of chemotherapeutic activity of the three epothilone subtypes follows the alphabet, where Epo A > Epo B > Epo D.

**References** 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.

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.

Rusinska-Roszak D, Tatka H, Pawlak R, et al. Extended and clustered conformers of epothilone A. *J Phys Chem B*. 2011 Apr 7;115(13):3698-707. PMID: 21405036.

Lee JJ, Kelly WK. Epothilones: tubulin polymerization as a novel target for prostate cancer therapy. *Nat Clin Pract Oncol*. 2009 Feb;6(2):85-92. PMID: 19048010.

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