



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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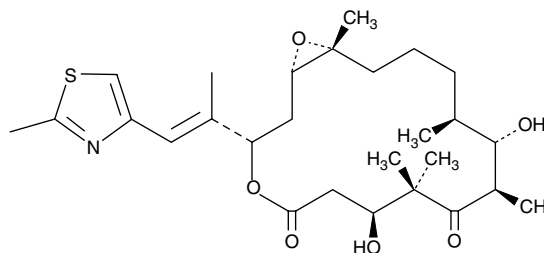
# Product Information



## Epothilone B

Item No. 10924

**CAS Registry No.:** 152044-54-7  
**Formal Name:** 7S,11S-dihydroxy-8,8,10R,12S,16R-pentamethyl-3S-[(1E)-1S-methyl-2-(2-methyl-4-thiazolyl)ethenyl]-4,17-dioxabicyclo[14.1.0]heptadecane-5,9-dione  
**Synonym:** Epo B  
**MF:** C<sub>27</sub>H<sub>41</sub>NO<sub>6</sub>S  
**FW:** 507.7  
**Purity:** ≥95%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 212, 250 nm



### Laboratory Procedures

For long term storage, we suggest that epothilone B (Epo B) be stored as supplied at -20°C. It should be stable for at least two years.

Epo B is supplied as a crystalline solid. A stock solution may be made by dissolving the Epo B in the solvent of choice. Epo B is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of Epo B in these solvents is approximately 30 mg/ml.

Epo B is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Epo B is a macrolide that causes the formation of bundles of intracellular microtubules in non-mitotic cells, induces the formation of hyperstable tubulin polymers, and arrests cell cycling in mitosis.<sup>1,2</sup> It induces mitotic arrest at the G<sub>2</sub>-M transition in Hs578T and HeLa cells (IC<sub>50</sub> = 3 and 32 nM, respectively) as well as in multidrug resistant KB3-1 and KBV-1 cells (IC<sub>50</sub> = 16 and 92 nM, respectively).<sup>1</sup> Epo B causes cell cycle arrest at nanomolar IC<sub>50</sub> values in cell lines from ovarian, breast, lung, colon, prostate, and squamous cancer.<sup>3</sup>

### References

1. Bollag, D.M., McQueney, P.A., Zhu, J., *et al.* Epothilones, a new class of microtubule-stabilizing agents with a taxol-like mechanism of action. *Cancer Res.* **55(11)**, 2325-2333 (1995).
2. Kowalski, R.J., Giannakakou, P., and Hamel, E. Activities of the microtubule-stabilizing agents epothilones A and B with purified tubulin and in cells resistant to paclitaxel (Taxol®). *J. Biol. Chem.* **272(4)**, 2534-2541 (1997).
3. Goodin, S., Kane, M.P., and Rubin, E.H. Epothilones: Mechanism of action and biologic activity. *J. Clin. Oncol.* **22(10)**, 2015-2025 (2011).

### Related Product

For a list of related products please visit: [www.caymanchem.com/catalog/10924](http://www.caymanchem.com/catalog/10924)

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

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