

PRODUCT INFORMATION



Eribulin

Item No. 17351

CAS Registry No.: 253128-41-5
Formal Name: (2R,3R,3aS,7R,8aS,9S,10aR,11S,12R,13aR,13bS,15S,18S,21S,24S,26R,28R,29aS)-2-[(2S)-3-amino-2-hydroxypropyl]hexacosahydro-3-methoxy-26-methyl-20,27-bis(methylene)-11,15:18,21:24,28-triepoxy-7,9-ethano-12,15-methano-9H,15H-furo[3,2-i]furo[2',3':5,6]pyrano[4,3-b][1,4]dioxacyclopentacosin-5(4H)-one

Synonyms: B1939, E7389, ER 086526

MF: $C_{40}H_{59}NO_{11}$

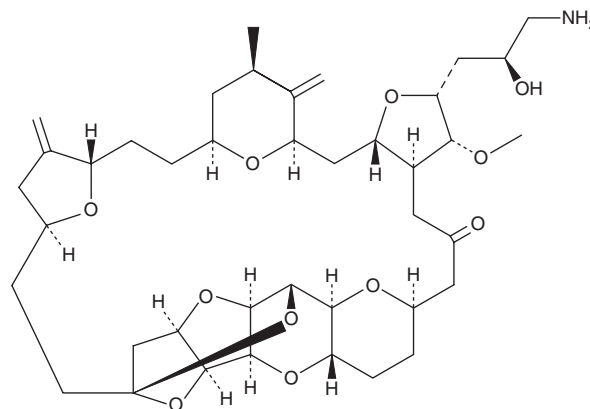
FW: 729.9

Purity: $\geq 98\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Eribulin is supplied as a solid. A stock solution may be made by dissolving the eribulin in the solvent of choice, which should be purged with an inert gas. Eribulin is sparingly soluble (1-10 mg/ml) in chloroform and slightly soluble (0.1-1 mg/ml) in methanol.

Description

Eribulin is an inhibitor of microtubule assembly and a derivative of the marine sponge macrolide halichondrin B.¹ It inhibits the proliferation of U937 human lymphoma cells, as well as induces cell cycle arrest at the G₂/M phase and, subsequently, apoptosis in the same cells when used at a concentration of 100 nM.² Eribulin (1.5 mg/kg per week) reduces tumor growth in a patient-derived xenograft (PDX) mouse model of cutaneous squamous cell carcinoma.³ It also reduces tumor growth and increases survival in an intracerebral U87MG mouse xenograft model of glioblastoma when administered at a dose of 0.5 mg/kg three times per week.⁴ Formulations containing eribulin have been used in the treatment of metastatic breast cancer.

References

1. Jordan, M.A., Kamath, K., Manna, T., *et al.* The primary antimitotic mechanism of action of the synthetic halichondrin E7389 is suppression of microtubule growth. *Mol. Cancer Ther.* **4**(7), (2005).
2. Kuznetsov, G., Towle, M.J., Cheng, H., *et al.* Induction of morphological and biochemical apoptosis following prolonged mitotic blockage by halichondrin B macrocyclic ketone analog E7389. *Cancer Res.* **64**(16), 5760-5766 (2004).
3. Hsu, C.-Y., Yanagi, T., Maeda, T., *et al.* Eribulin inhibits growth of cutaneous squamous cell carcinoma cell lines and a novel patient-derived xenograft. *Sci. Rep.* **13**(1), 8650 (2023).
4. Takahashi, M., Miki, S., Fujimoto, K., *et al.* Eribulin penetrates brain tumor tissue and prolongs survival of mice harboring intracerebral glioblastoma xenografts. *Cancer Sci.* **110**(7), 2247-2257 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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