

## Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

#### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



#### Ellipticine

Item No. 18742

519-23-3
5,11-dimethyl-6H-pyrido[4,3-b]carbazole
NSC 71795
$C_{17}H_{14}N_{2}$
246.3
≥98%
≥2 years at -20°C
A crystalline solid
λ <sub>max</sub> : 247, 276, 294 nm



#### Laboratory Procedures

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

Ellipticine is supplied as a crystalline solid. A stock solution may be made by dissolving the ellipticine in the solvent of choice. Ellipticine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ellipticine in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Ellipticine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ellipticine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ellipticine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

Ellipticine is an alkaloid isolated from Apocyanaceae plants that exhibits antitumor activities by intercalating into DNA and/or inhibiting DNA topoisomerase II.<sup>1-3</sup> It forms covalent adducts in DNA after being enzymatically activated with cytochrome P450 isoforms (e.g., CYP3A4, CYP1A1, or CYP1A2) or by peroxidases in target tissues.<sup>2,3</sup> Ellipticine has been shown to inhibit the proliferation of human breast adenocarcinoma MCF-7 cells, leukemia HL-60 and CCRF-CEM cells, neuroblastoma IMR-32, UKF-NB-3, and UKF-NB-4 cells, and U87MG glioblastoma cells with IC<sub>50</sub> values ranging from 0.27-4.7  $\mu$ M.<sup>2</sup>

#### References

- 1. Kohn, K.W., Waring, M.J., Glaubiger, D., et al. Intercalative binding of ellipticine to DNA. Cancer Res. 35(1), 71-76 (1975).
- 2. Stiborovį, M., Poljakova, J., Martinkova, E., et al. Ellipticine cytotoxicity to cancer cell lines a comparative study. Interdiscip. Toxicol. 4(2), 98-105 (2011).
- 3. Aimovi, D., Svobodovi, L., Kotrbovi, V., et al. The anticancer drug ellipticine is a potent inducer of rat cytochromes P450 1A1 and 1A2, thereby modulating its own metabolism. Drug Metab. Dispos. 35(10), 1926-1934 (2007).

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

#### SAFFTY 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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