

# Etoposide

Catalog No: tcsc1774



## Available Sizes

**Size:** 100mg

**Size:** 200mg

**Size:** 500mg

**Size:** 1g

**Size:** 2g

**Size:** 5g



## Specifications

**CAS No:**

33419-42-0

**Formula:**

$C_{29}H_{32}O_{13}$

**Pathway:**

Anti-infection; Apoptosis; Autophagy; Cell Cycle/DNA Damage

**Target:**

Antibiotic; Apoptosis; Autophagy; Bacterial; Mitophagy; Topoisomerase

**Form:**

White to off-white (Solid)

**Purity / Grade:**

99.67%

**Solubility:**

DMSO :  $\geq 39$  mg/mL (66.26 mM)

**Storage Instruction:**

2-8°C, protect from light

**Alternative Names:**

VP-16;VP-16-213;Furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one, 9-[[4,6-O-(1R)-ethylidene-β-D-glucopyranosyl]oxy]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-, (5R,5aR,8aR,9S)-

**Observed Molecular Weight:**

588.56

**References**

[1]. Lee KI, et al. Etoposide induces pancreatic β-cells cytotoxicity via the JNK/ERK/GSK-3 signaling-mediated mitochondria-dependent apoptosis pathway. *Toxicol In Vitro*. 2016 Jul 26. pii: S0887-2333(16)30147-3. [2]. Calvani M, et al. Etoposide-Anti-Human VEGF a new strategy against human melanoma cells expressing stem-like traits. *Oncotarget*. 2016 Jun 9. doi: 10.18632/oncotarget.9939. [3]. Fuchs, J., et al. Comparative activity of NSC 119875, NSC 109724, NSC 123127, NSC 241240, and etoposide in heterotransplanted hepatoblastoma. *Cancer*, 1998. 83(11): p. 2400-7. [4]. Hande KR, et al. The Importance of Drug Scheduling in Cancer Chemotherapy: Etoposide as an Example. *Oncologist*. 1996;1(4):234-239. [5]. Cui D, et al. FBXW7 Confers Radiation Survival by Targeting p53 for Degradation. *Cell Rep*. 2020 Jan 14;30(2):497-509.e4.

**Notes**

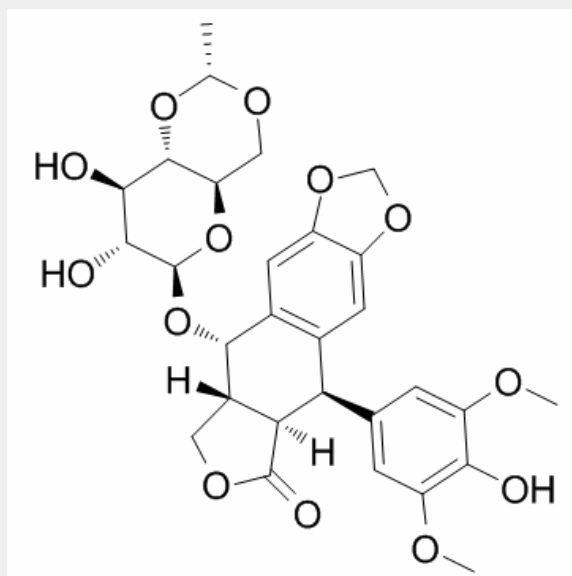
Formulation: 5% DMSO+40% PEG 300+5% Tween 80+water<br>15 mg/mL

**Product Description**

Etoposide is a chemotherapy medication used for the treatments of a number of types of cancer. Etoposide inhibits **DNA synthesis** by forming a complex with topoisomerase II and DNA.

***In Vitro:*** Etoposide is capable of causing cytotoxicity on pancreatic β-cells by inducing apoptosis through the JNK/ERK-mediated GSK-3 downstream-triggered mitochondria-dependent signaling pathway in RIN-m5F cells<sup>[1]</sup>. Etoposide and Bevacizumab significantly abolish P1 sphere-forming ability, an effect associated with apoptosis of this subset of cells<sup>[2]</sup>.

***In Vivo:*** Etoposide (50 μM) and Bevacizumab-treated hypoxic cells injected intravenously into immunodeficient mice reveals a reduced capacity to induce lung colonies, which also appear with a longer latency period<sup>[2]</sup>. Etoposide (10 mg/kg/day, i.v.) with ifosfamide and carboplatin, reduces the tumor volume in the hepatoblastoma cell injected NMRI nude mice<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!