

# Teniposide

**Catalog No: tcsc1366**



## Available Sizes

**Size:** 25mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg



## Specifications

**CAS No:**

29767-20-2

**Formula:**

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

**Pathway:**

Cell Cycle/DNA Damage

**Target:**

Topoisomerase

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 30$  mg/mL (45.69 mM)

**Alternative Names:**

VM26

**Observed Molecular Weight:**

656.65

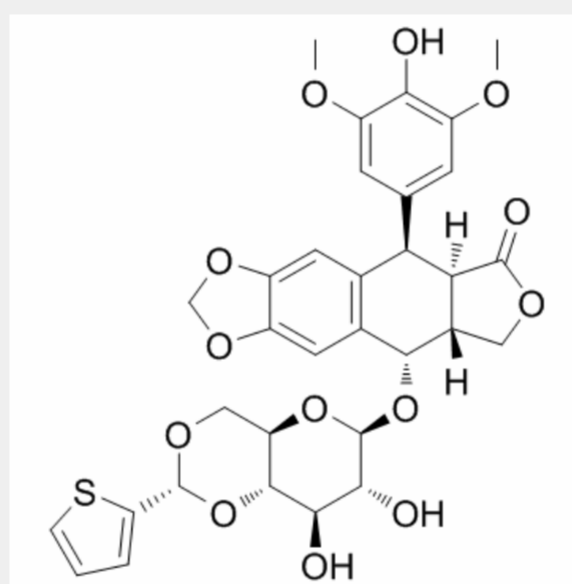
## Product Description

Teniposide is a podophyllotoxin derivative, acts as a **topoisomerase II** inhibitor, and used as a chemotherapeutic agent.

IC<sub>50</sub> & Target: Topoisomerase II<sup>[2]</sup>

**In Vitro:** Teniposide is a topoisomerase II inhibitor. Teniposide (VM-26, 0.15-45 mg/L) inhibits the proliferation of Tca8113 cells in a dose-dependent manner, with an IC<sub>50</sub> of 0.35 mg/L. Teniposide (5 mg/L) induces apoptosis of Tca8113 cells. Teniposide (5.0 mg/L) causes cell arrested at G2/M phase in Tca8113 cells<sup>[2]</sup>. Teniposide is active on primary cultured glioma cells from patients, when the level of miR-181b is high in the cells, with an IC<sub>50</sub> of  $1.3 \pm 0.34 \mu\text{g/mL}$ . Cells treated with teniposide with low MDM2 have decreased viability compared with control cells, and the IC<sub>50</sub> decreases from  $5.86 \pm 0.36 \mu\text{g/mL}$  to  $2.90 \pm 0.35 \mu\text{g/mL}$  upon MDM2 suppression. Teniposide also inhibits the viability of glioma cell with high level of miR-181b, through mediation of MDM2<sup>[3]</sup>.

**In Vivo:** Teniposide (0.5 mg/kg, i.p.) significantly increases micronucleated polychromatic erythrocyte (MNPCE) frequencies, which is directly related to bone marrow toxicity as significant suppression of bone marrow is noted. Teniposide (24 mg/kg, i.p.) markedly decreases the frequencies of BrdU-labelled sperm. Teniposide (12, 24 mg/kg, i.p.) also dramatically induces disomic sperm in the germ cell of male mice<sup>[1]</sup>.



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