Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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 : ≥ 30 mg/mL (45.69 mM)

Alternative Names:
VM26

Observed Molecular Weight:
656.65

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Product Description

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

IC50 & Target: Topoisomerase II[2]

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_{50} 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[2]. Teniposide is active on primary cultured glioma cells from patients, when the level of miR-181b is high in the cells, with an IC_{50} of 1.3 ± 0.34 μg/mL. Cells treated with teniposide with low MDM2 have decreased viability compared with control cells, and the IC_{50} decreases from 5.86 ± 0.36 μg/mL to 2.90 ± 0.35 μg/mL upon MDM2 suppression. Teniposide also inhibits the viability of glioma cell with high level of miR-181b, through mediation of MDM2[3].

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[1].