

Irinotecan

Catalog No: tcsc1138



Available Sizes

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg



Specifications

CAS No:

97682-44-5

Formula:

$C_{33}H_{38}N_4O_6$

Pathway:

Cell Cycle/DNA Damage;Autophagy

Target:

Topoisomerase;Autophagy

Purity / Grade:

>98%

Solubility:

DMSO : 30 mg/mL (51.14 mM; Need ultrasonic)

Alternative Names:

(+)-Irinotecan; CPT-11

Observed Molecular Weight:

586.68

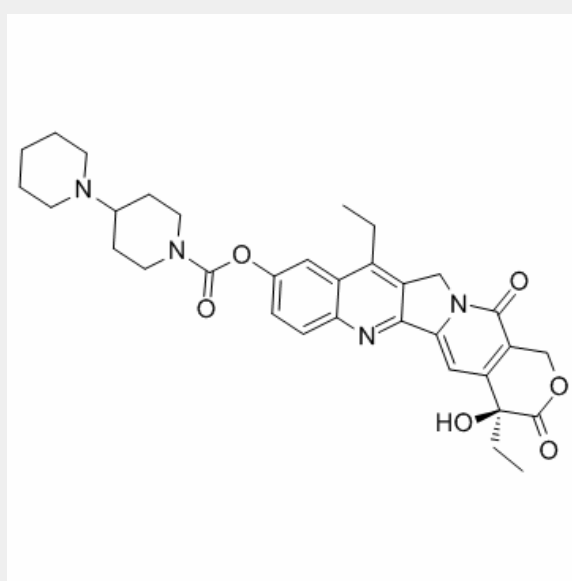
Product Description

Irinotecan is a water soluble **topoisomerase I** inhibitor with antitumor activity.

IC₅₀ & Target: Topoisomerase I^[1]

In Vitro: Irinotecan is a topoisomerase I inhibitor. Irinotecan inhibits the growth of LoVo and HT-29 cells, with IC₅₀s of 15.8 ± 5.1 and 5.17 ± 1.4 μM , respectively, and induces similar amounts of cleavable complexes in both in LoVo and HT-29 cells^[2]. Irinotecan suppresses the proliferation of human umbilical vein endothelial cells (HUVEC), with an IC₅₀ of 1.3 μM ^[3].

In Vivo: Irinotecan (CPT-11, 5 mg/kg) significantly inhibits the growth of tumors by intratumoral injection daily for 5 days, on two consecutive weeks in rats, and such effects also occur via continuous intraperitoneal infusion by osmotic minipump into mice. However, Irinotecan (10 mg/kg) shows no effect on the growth of tumor by i.p.^[1]. Irinotecan (CPT-11, 100-300 mg/kg, i.p.) apparently suppresses tumor growth of HT-29 xenografts in athymic female mice by day 21. The two groups of Irinotecan (125 mg/kg) plus TSP-1 (10 mg/kg per day) or Irinotecan (150 mg/kg) in combination TSP-1 (20 mg/kg per day) are nearly equally effective and inhibit tumor growth 84% and 89%, respectively, and both are more effective than Irinotecan alone at doses of 250 and 300 mg/kg^[3].



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