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

Irinotecan (hydrochloride)

Catalog No: tcsc2988

Available Sizes

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
100286-90-6

Formula:
$C_{33}H_{39}ClN_4O_6$

Pathway:
Cell Cycle/DNA Damage;Autophagy

Target:
Topoisomerase;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 51 mg/mL (81.84 mM)

Storage Instruction:
4℃

Alternative Names:
CPT-11 hydrochloride;Camptothecin 11 hydrochloride

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Observed Molecular Weight:
623.14

Product Description

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

IC50 & Target: Topoisomerase I[1]

In Vitro: Irinotecan hydrochloride is a topoisomerase I inhibitor. Irinotecan inhibits the growth of LoVo and HT-29 cells, with IC_{50}s 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 IC_{50} 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].