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

SN-38

Catalog No: tcsc1579

Available Sizes

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
86639-52-3

Formula:
$C_{22}H_{20}N_2O_5$

Pathway:
Cell Cycle/DNA Damage;Autophagy

Target:
Topoisomerase;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 40 mg/mL (101.94 mM)

Alternative Names:
NK012

Observed Molecular Weight:
392.4

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Product Description

SN-38 (NK012) is an active metabolite of the **Topoisomerase I** inhibitor Irinotecan. SN-38 (NK012) inhibits **DNA** and **RNA synthesis** with **IC_{50}**s of 0.077 and 1.3 μM, respectively.

IC50 & Target: Topoisomerase I[1]

In Vitro: The IC_{50} values for LoVo, HCT116, and HT29 cell lines is 20 nM, 50 nM, 130 nM, respectively. In all three SN-38 (NK012) resistant cell lines Top1 activity is maintained in the presence of high concentrations of SN-38[2].

In Vivo: SN-38 (NK012), the active and toxic metabolite of the anticancer prodrug Irinotecan. At 30 minutes after administration, Irinotecan plasma concentrations in *Slco1a/1b(−/−)* mice are 1.9-fold higher than in the wild-type mice (1.89 vs. 1.01 μM, respectively), whereas SN-38 (NK012) plasma concentrations of *Slco1a/1b(−/−)* mice are 8-fold higher compare with wild-type mice (0.4 μg/mL vs. 0.05 μg/mL, respectively). Overall plasma exposure [$AUC_{(5-240)}$] of Irinotecan is 1.7-fold higher in Oatp1a/1b knockout mice versus wild-type mice (209.8±6.7 vs. 120.9±4.4 μM/min; P[3].