

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

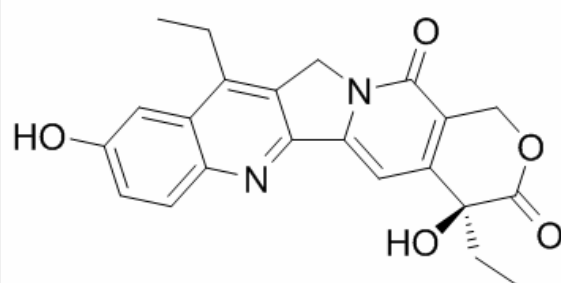
Product Description

SN-38 (NK012) is an active metabolite of the **Topoisomerase I** inhibitor Irinotecan. SN-38 (NK012) inhibits **DNA** and **RNA synthesis** with **IC₅₀**s of 0.077 and 1.3 μ M, respectively.

IC50 & Target: Topoisomerase I^[1]

In Vitro: The IC₅₀ 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 *S/co1a/1b*(-/-) mice are 1.9-fold higher than in the wild-type mice (1.89 vs. 1.01 μ M, respectively), whereas SN-38 (NK012) plasma concentrations of *S/co1a/1b*(-/-) mice are 8-fold higher compare with wild-type mice (0.4 μ g/mL vs. 0.05 μ g/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 \pm 6.7 vs. 120.9 \pm 4.4 μ M/min; P[3].



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