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

Campathecin

Catalog No: tcsc1049

Available Sizes

Size: 100mg

Size: 500mg

Specifications

CAS No:
7689-03-4

Formula:
$C_{20}H_{16}N_2O_4$

Pathway:
Antibody-drug Conjugate/ADC Related; Anti-infection;Apoptosis; Cell Cycle/DNA Damage; Epigenetics

Target:
ADC Cytotoxin; Antibiotic; Apoptosis; Fungal; Influenza Virus;MicroRNA; Topoisomerase

Purity / Grade:
99.58%

Solubility:
DMSO : 6.25 mg/mL (17.94 mM; Need ultrasonic)

Storage Instruction:
2-8°C, protect from light

Alternative Names:
Campathecin; (S)-(+)-Camptothecin; CPT

Observed Molecular Weight:
348.35

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

References

[1]. Luzzio MJ, et al. Synthesis and antitumor activity of novel water soluble derivatives of camptothecin as specific inhibitors of topoisomerase I. Synthesis and antitumor activity of novel water soluble derivatives of camptothecin as specific inhibitors of topoisomerase I. [2]. Bertozzi D, et al. The natural inhibitor of DNA topoisomerase I, camptothecin, modulates HIF-1α activity by changing miR expression patterns in human cancer cells. Mol Cancer Ther. 2014;13(1):239-248. [3]. Schön M, et al. KINK-1, a novel small-molecule inhibitor of IKKbeta, and the susceptibility of melanoma cells to antitumoral treatment. J Natl Cancer Inst. 2008;100(12):862-875..

Product Description

Campathecin is a potent DNA enzyme **topoisomerase I** inhibitor, with an $\mathbf{IC_{50}}$ of 679 nM.

IC50 & Target: IC50: 679 nM (topoisomerase I)[3]

In Vitro: [^{3}H]BrCPT labeling of topoisomerase I is enhanced greatly by the presence of DNA; very little labeling of isolated topoisomerase I or isolated DNA occurrs. Even in the presence of DNA, [^{3}H]BrCPT labeling of topoisomerase I is inhibited by camptothecin, suggesting that both CPT and BrCPT bind to the same site on the DNA-topoisomerase I binary complex[1]. With increasing concentrations of camptothecin, closed circular pRR322 DNA (form I) is converted to nicked circular DNA (form 11). This apparent nicking activitv of camptothecin required DNA topoisomerase I[2].