

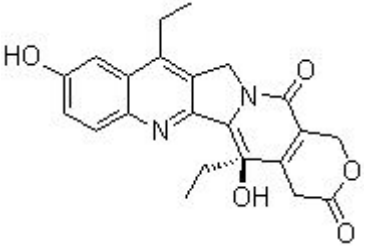


Product Introduction

SN-38

SN-38 is an active metabolite of CPT-11, inhibits DNA topoisomerase I, DNA synthesis and causes frequent DNA single-strand breaks.

Technical Data:

Molecular Weight (MW):	392.4	
Formula:	C ₂₂ H ₂₀ N ₂ O ₅	
Solubility (25°C)	DMSO 21 mg/mL	
* <1 mg/ml means slightly soluble or insoluble:	Water <1 mg/mL	
	Ethanol <1 mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder 6 months -80°C in DMSO	
CAS No.:	86639-52-3	

Biological Activity

SN-38, a biological active metabolite of irinotecan hydrochloride (CPT-11). SN-38 causes the strongest inhibition of DNA topoisomerase I, followed by CPT and then CPT-11. CPT-11 dose dependently shifts the position of relaxed DNA in the direction of nicked DNA, but SN-38 and CPT shows no effect on the position of relaxed DNA. SN-38 dose-dependently and time-dependently inhibit DNA synthesis. Respective IC₅₀ values of SN-38, in DNA synthesis is 0.077 μM. The inhibitory effect of SN-38 on RNA synthesis is less than that on DNA synthesis and it does not inhibit protein synthesis. SN-38 caused frequent DNA single-strand breaks.

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breaks in P388 cells. ^[1]

After oral dosing, peak SN-38 concentrations occurs within 1 h, and the The percent unbound SN-38 lactone in murine plasma at 1000 ng/mL is 3.4 +/- 0.67%, whereas at 100 ng/mL the percent unbound is 1.18 +/- 0.14%. SN-38 lactone AUCs in micebearing human neuroblastoma xenografts are greater than in nontumor-bearing animals. ^[2]

References

- [1] Kawato Y, et al. *Cancer Res*, 1991, Aug 15, 51(16), 4187-4191.
- [2] Stewart CF, et al. *Cancer Chemother Pharmacol*, 1997, 40(3), 259-265.
- [3] Chen TC, et al. *Cancer*, 2003, 97(9 Suppl), 2363-2373.



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