

Product Name:	Camptothecin sodium
Product Number:	C146
CAS Number:	25387-67-1
Molecular Formula:	$C_{20}H_{17}N_2NaO_5$
Molecular Weight:	388.35
Appearance:	Light yellow crystalline powder
Storage Conditions:	<30°
Description:	Camptothecin sodium is an alkaloid topoisomerase I (topo I) inhibitor with anticancer properties. Camptothecin sodium is isolated from either <i>Camptotheca acuminata</i> , a deciduous tree; or <i>Nothapodytes foetida</i> ; a fungus.
Mechanism of Action:	Camptothecin sodium inhibits DNA religation in the cleavage/religation step by binding to DNA topoisomerase I (topo I) and DNA which forms a DNA topoisomerase I - camptothecin - DNA complex. This complex causes DNA damage and leads to apoptosis.
Cancer Applications	Camptothecin has poor water solubility and several camptothecin analogs and derivatives have been synthesized in an attempt to improve water solubility, bioavailability, and lactone stability.
References:	Venditto, Vincent J. "Cancer Therapies Utilizing the Camptothecins: A Review of the in Vivo Literature." American Chemical Society (2010): 307-49. Web.