

Camptothecin (Camptotheca acuminata)

PRODUCT DATA SHEET

issue date 01/06/2020

Product Name:	Camptothecin (Camptotheca acuminata)
Product Number:	C070
CAS Number:	7689-03-4
Molecular Formula:	$C_{20}H_{16}N_2O_4$
Molecular Weight:	348.352
Source:	Camptotheca acuminata (plant)
Storage Conditions:	2-8 °C
Description:	<p>Camptothecin is an alkaloid topoisomerase I (topo I) inhibitor with anticancer properties. Camptothecin is isolated from Camptotheca acuminata, a deciduous tree.</p> <p>This product is considered a dangerous good. Quantities above 1 g may be subject to additional shipping fees. Please contact us for specific questions.</p>
Mechanism of Action:	Camptothecin 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.

If you need any help, contact us: info@toku-e.com. Find more information on: www.toku-e.com/