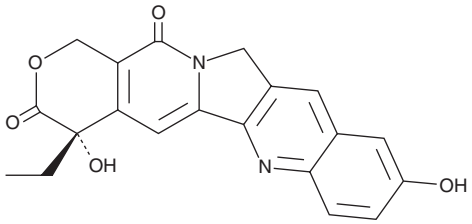
PRODUCT INFORMATION

(S)-10-hydroxy-Camptothecin

Item No. 14635

CAS Registry No.:	19685-09-7
Formal Name:	(4S)-4-ethyl-4,9-dihydroxy-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione
Synonyms:	ChEMBL 273862, NSC 107124
MF:	$C_{20}H_{16}N_2O_5$
FW:	364.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 222, 267, 330, 383 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(S)-10-hydroxy-Camptothecin is supplied as a crystalline solid. A stock solution may be made by dissolving the (S)-10-hydroxy-camptothecin in the solvent of choice, which should be purged with an inert gas. (S)-10-hydroxy-Camptothecin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of (S)-10-hydroxy-camptothecin in these solvents is approximately 3 and 2 mg/ml, respectively.

(S)-10-hydroxy-Camptothecin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (S)-10-hydroxy-camptothecin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (S)-10-hydroxy-Camptothecin has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(S)-10-hydroxy-Camptothecin is an inhibitor of topoisomerase I originally isolated from the Chinese tree *C. acuminata*. It is a member of the camptothecin family that demonstrates less toxicity than its parent compound.[1] (S)-10-hydroxy-Camptothecin has strong anti-tumor activity against a wide range of experimental tumors including L1210 leukemia cells (IC_{50} = 1.15 µM).[1] *In vitro* treatment of human HepG2 cells with 5-20 µM (S)-10-hydroxy-camptothecin results in cell cycle arrest at the G_2/M phase.[2]

References

1. Yu, P., Xia, L., Zhao, J., *et al.* Synthesis and preliminary anticancer evaluation of 10-hydroxycamptothecin analogs. *Biol. Pharm. Bull.* **35(8)**, 1295-1299 (2012).
2. Zhang, X.W., Jiang, J.F., and Xu, B. Differentiation-inducing action of 10-hydroxycamptothecin on human hepatoma Hep G2 cells. *Acta Pharmacol. Sin.* **21(4)**, 364-368 (2000).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM