

Product datasheet

SN 38, DNA topoisomerase I inhibitor ab141108

[4 References](#) [2 Images](#)

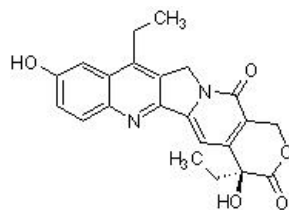
Overview

Product name	SN 38, DNA topoisomerase I inhibitor
Description	DNA topoisomerase I inhibitor. Active metabolite of CPT-11.
Biological description	Active metabolite of CPT-11 (Irinotecan) (ab141107). Inhibits DNA topoisomerase I (IC ₅₀ values are 0.74 and 1.9 μM in P388 and Ehrlich cells respectively) and DNA and RNA synthesis (IC ₅₀ values are 77 nM and 1.3 μM respectively). Shows potent antitumor activity, causes S- and G ₂ cell cycle arrest and induces apoptosis. Active <i>in vivo</i> .

Purity > 99%

CAS Number 86639-52-3

Chemical structure



Properties

Chemical name	(4S)-4,11-Diethyl-4,9-dihydroxy-1 <i>H</i> -pyrano[3',4':6,7]indolizino[1,2- <i>b</i>]quinoline-3,14(4 <i>H</i> ,12 <i>H</i>)-dione
Molecular weight	392.41
Molecular formula	C ₂₂ H ₂₀ N ₂ O ₅
PubChem identifier	104842
Storage instructions	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in DMSO to 100 mM
Handling	Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour. Toxic, refer to SDS for further information.

Need more advice on solubility, usage and handling? Please visit our [frequently asked questions \(FAQ\) page](#) for more details.

SMILES

CC[C@]1(O)C=2C=C3c4nc5ccc(O)cc5c(CC)c4CN3C(=O)C=2COC1=O

Source

Synthetic

Applications

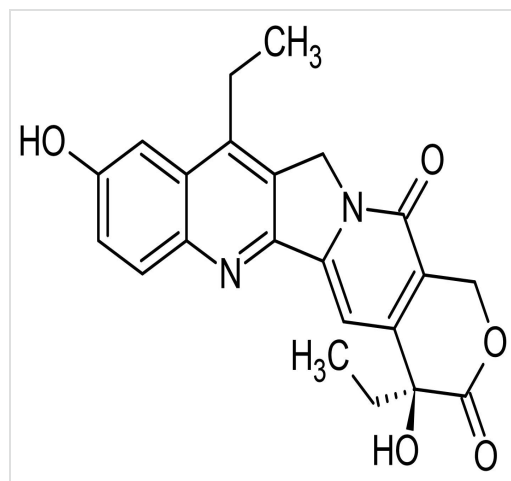
The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab141108 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

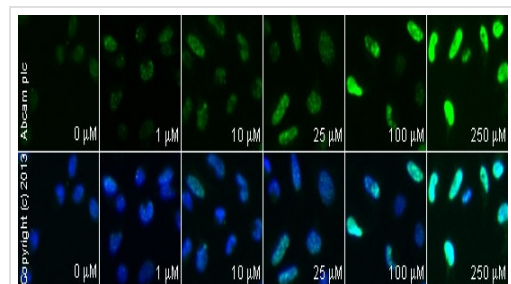
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - SN 38, DNA topoisomerase I inhibitor (ab141108)

2D chemical structure image of ab141108, SN 38, DNA topoisomerase I inhibitor



Immunocytochemistry/ Immunofluorescence - SN 38, DNA topoisomerase I inhibitor (ab141108)

ab2893 staining γ H2A.X in HeLa cells treated with SN 38 (ab141108), by ICC/IF. Increase of γ H2A.X nuclear expression correlates with increased concentration of SN 38, as described in literature.

The cells were incubated at 37°C for 6 hours in media containing different concentrations of ab141108 (SN 38) in DMSO, fixed with 100% methanol for 5 minutes at -20°C and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with **ab2893** (5 μ g/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the

secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
- Abcam biochemicals are novel compounds and we have not tested their biological activity in house. Please use the literature to identify how to use these products effectively. If you require further assistance please contact the scientific support team