

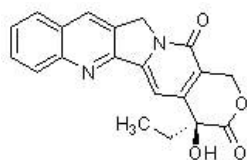
Product datasheet

Camptothecin, DNA topoisomerase inhibitor ab120115

2 References 4 Images

Overview

Product name	Camptothecin, DNA topoisomerase inhibitor
Description	DNA topoisomerase inhibitor
Biological description	Cell-permeable DNA topoisomerase inhibitor. Potent antitumour and antibiotic agent.
CAS Number	7689-03-4
Chemical structure	



Properties

Chemical name	(S)-4-Ethyl-4-hydroxy-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	348.35
Molecular formula	C ₂₀ H ₁₆ N ₂ O ₄
PubChem identifier	24360
Storage instructions	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in DMSO to 5 mM
Handling	<p>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.</p> <p>Toxic, refer to SDS for further information.</p> <p>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p>
SMILES	CC[C@]1(O)C=2C=C3c4nc5ccccc5cc4CN3C(=O)C=2COC1=O
Source	Synthetic

Applications

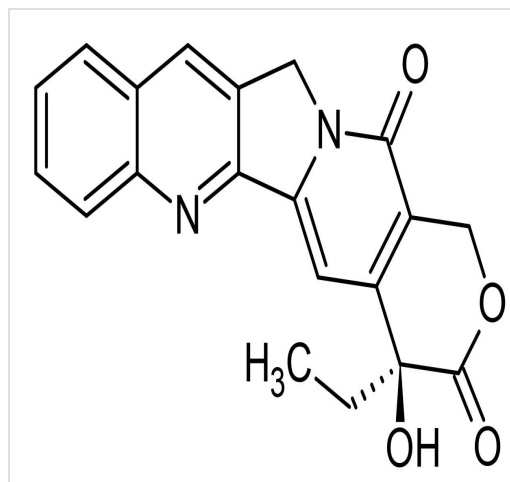
The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab120115 in the following tested applications.

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

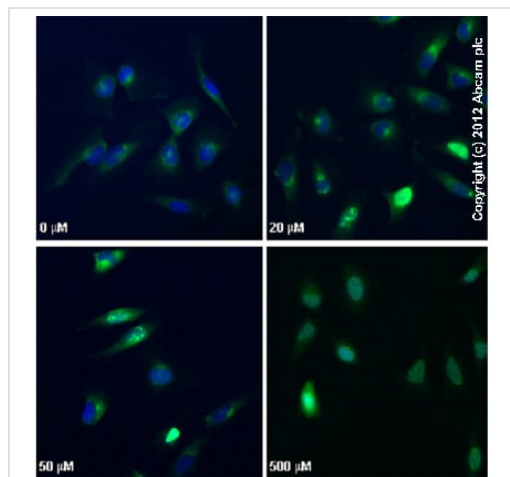
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - Camptothecin, DNA topoisomerase inhibitor (ab120115)

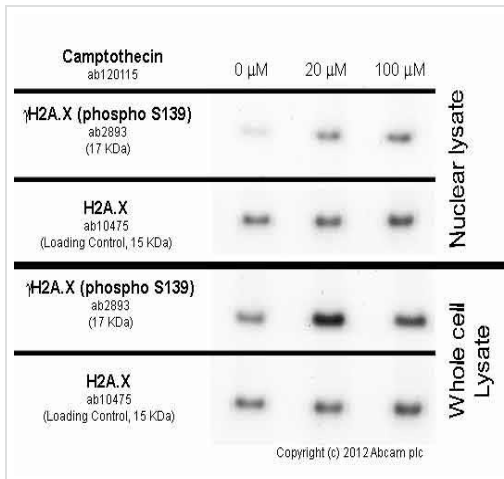
2D chemical structure image of ab120115, Camptothecin, DNA topoisomerase inhibitor



Functional Studies - Camptothecin, DNA topoisomerase inhibitor (ab120115)

[ab2893](#) staining γ H2AX (phospho S139) in HeLa cells treated with camptothecin (ab120115), by ICC/IF. Increased nuclear expression of γ H2AX (phospho S139) correlates with increased concentration of camptothecin, as described in literature.

The cells were incubated at 37°C for 3h in media containing different concentrations of ab120115 (camptothecin) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature 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](#) (10 μ g/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat 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.

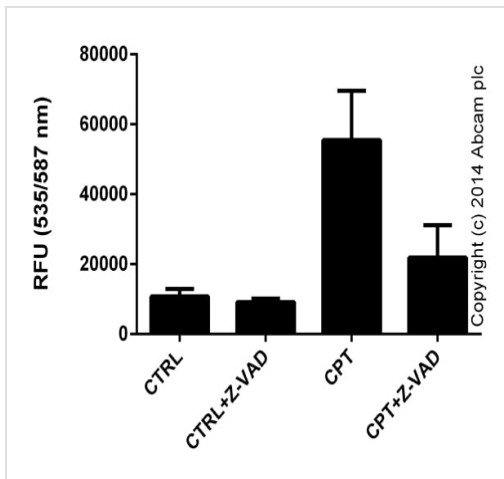


Functional Studies - Camptothecin, DNA topoisomerase inhibitor (ab120115)

HeLa cells were incubated at 37°C for 3h with vehicle control (0 μM) and different concentrations of camptothecin (ab120115).

Decreased expression of γH2A.X (phospho S139) in HeLa cells correlates with an increase camptothecin concentration, as described in literature.

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 20 μg of each were loaded on the gel and the WB was run under reducing conditions. After transfer the membrane was blocked for an hour using 5% BSA before being incubated with ab2893 at 1 μg/ml and ab10475 at 1 μg/ml overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP (ab97051) at 1/10000 dilution and visualised using ECL development solution.



Functional Studies - Camptothecin, DNA topoisomerase inhibitor (ab120115)

Functional assays: Caspase 3 (active) Red Staining Kit (ab65617)

Caspase 3 activity in Jurkat cells (3 x10e5 cells) following 24 hour exposure to 2 uM Camptothecin (ab120115) with or without 50 μM caspase inhibitor Z-VAD(OMe)-FMK (ab120487). Background signal subtracted, duplicates; +/- SD.

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

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