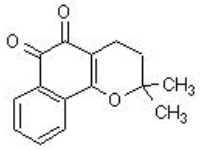
abcam

Product datasheet

beta-Lapachone, Topoisomerase I inhibitor ab141097

4 References 2 Images

Overview

Product name	beta-Lapachone, Topoisomerase I inhibitor
Description	Topoisomerase I inhibitor
Biological description	Topoisomerase I inhibitor. Inhibits topoisomerase I induced DNA cleavage. Induces apoptosis via a p53 independent mechanism. Shows antitumor, antiviral, antibacterial, antifungal and wound healing activities.
Purity	> 98%
CAS Number	4707-32-8
Chemical structure	

Properties

Chemical name	3,4-Dihydro-2,2-dimethyl-2*H*-naphtho[1,2-*b*]pyran-5,6-dione
Molecular weight	242.27
Molecular formula	$C_{15}H_{14}O_3$
PubChem identifier	497540
Storage instructions	Store at +4°C. The product can be stored for up to 12 months.
Solubility overview	Soluble in ethanol to 50 mM and 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. Need more advice on solubility, usage and handling? Please visit our **frequently asked questions (FAQ) page** for more details.
SMILES	O=C3C(=O)c1ccccc1C2OC(C)(C)CCC23
Source	Synthetic

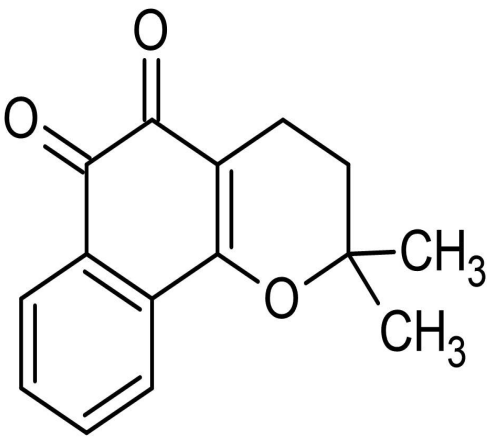
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab141097 in the following tested applications.

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

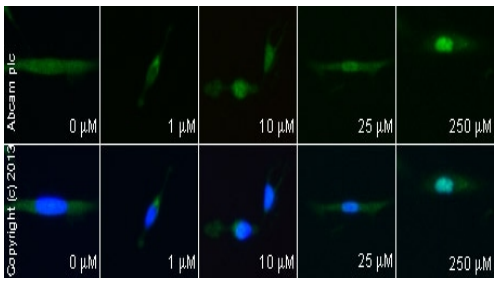
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - beta-Lapachone, Topoisomerase I inhibitor (ab141097)

2D chemical structure of ab141097, beta-Lapachone, Topoisomerase I inhibitor



Functional Studies - beta-Lapachone, Topoisomerase I inhibitor (ab141097)

ab18209 staining p21 in serum starved PC-3 cells treated with ß-lapachone (ab141097), by ICC/IF. Increase of p21 nuclear expression correlates with increased concentration of ß-lapachone, as described in literature.

The cells were incubated at 37°C for 6 hours in media containing different concentrations of ab141097 (ß-lapachone) 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 **ab18209** (5 µg/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.

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