SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

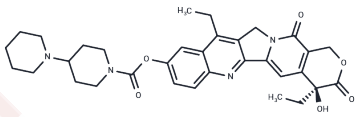
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T6228)

TargetMol

Irinotecan

Chemical Properties



CAS No. : 97682-44-5

Formula: C33H38N4O6

Molecular Weight: 586.68

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Irinotecan (CPT-11), a derivative of camptothecin, is an inhibitor of DNA topoisomerase I (Topo I). Irinotecan has antitumor activity by preventing DNA strand reattachment through binding to the Topo I complex, resulting in double-stranded DNA breaks and cell death.
Targets(IC50)	Topoisomerase,Autophagy
In vitro	**METHODS**: Human breast cancer cells MCF-7 were treated with Irinotecan (10-320 μg/mL) for 24-48 h. Cell viability was measured by trypan blue. **RESULTS**: Cell viability decreased to 85.5% at 10 μg/mL and 58% at 160 μg/mL with Irinotecan treatment for 24 h. Viability decreased to 33% at 160 μg/mL with Irinotecan treatment for 48 h. [1] **METHODS**: HCT116 p53+/+,hMLH1+, p53+/+,hMLH1- and p53-/-,hMLH1- were treated with Irinotecan (4.5 μM) for 48 h. Cell cycle profiles were analyzed by Flow Cytometry. **RESULTS**: Irinotecan treatment induced G2/M arrest of different durations in all three cell lines. The block was maintained for at least 12 days in the p53+/+, hMLH1+ cell lines. The slow release of the block in the p53+/+, hMLH1- cell line 6-9 days after treatment initiation suggests that the status of the hMLH1 molecule may indirectly or directly influence the maintenance of G2/M block. In the p53-/- cell line, G2/M block was terminated within 4 days of treatment initiation. [2]
In vivo	**METHODS**: To test the antitumor activity in vivo, Irinotecan (40 mg/kg) was administered intraperitoneally three times a week for four weeks to an NSG mouse model of MLL rearrangement ALL xenografts. **RESULTS**: Irinotecan effectively inhibited the growth of MLL rearrangement ALL in vivo. [3] **METHODS**: To assay anti-tumor activity in vivo, Irinotecan (10 mg/kg four times every four days or 40 mg/kg six times every four days) was administered intraperitoneally to swiss nu/nu mice bearing five CRC xenograft tumors. **RESULTS**: At low doses of Irinotecan, four of the five xenografts responded to Irinotecan with a growth delay of up to 10 days. At high doses of Irinotecan, five xenografts showed variable but significant responses. [4]
Cell Research	Irinotecan is dissolved in DMSO and stored, and then diluted with appropriate medium before use[1]. To determine the effects of Irinotecan in combination with 5-FU, the MTT assay is used. Depending on the cell lines, 10,000 to 20,000 cells per well are seeded in 96-well plates and incubated for 24 h in complete medium. On day 2, cells are

incubated in the absence or presence of Irinotecan for 30 min followed by 5-FU for 24 h. After another 24 h in complete medium without any additives, MTT reagent is added on day 4 to initiate the assay and the cells are incubated for an additional 4 h at 37°C. After removal of the medium and dissolving the crystals with acidified isopropanol, the samples are analyzed using an ELISA plate reader at 570 nm. The value at 650 nm is subtracted as background[1].

Solubility Information

Solubility	DMSO: 11 mg/mL (18.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7045 mL	8.5225 mL	17.0451 mL
5 mM	0.3409 mL	1.7045 mL	3.409 mL
10 mM	0.1705 mL	0.8523 mL	1.7045 mL
50 mM	0.0341 mL	0.1705 mL	0.3409 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Keyvani-Ghamsari S, et al. Effect of irinotecan on HMGB1, MMP9 expression, cell cycle, and cell growth in breast cancer (MCF-7) cells. Tumour Biol. 2017 Apr;39(4):1010428317698354.

Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481