# Duocarmycin TM

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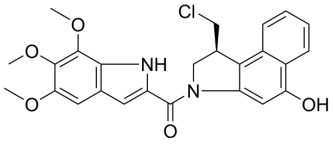
|---|---|
| **Cat. No.:** | HY-107769 |
| **CAS No.:** | 157922-77-5 |
| **Molecular Formula:** | $C_{25}H_{23}ClN_2O_5$ |
| **Molecular Weight:** | 466.91 |
| **Target:** | ADC Cytotoxin; DNA Alkylator/Crosslinker; Antibiotic |
| **Pathway:** | Antibody-drug Conjugate/ADC Related; Cell Cycle/DNA Damage; Anti-infection |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : ≥ 50 mg/mL (107.09 mM)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.1417 mL | 10.7087 mL | 21.4174 mL |
| 5 mM | 0.4283 mL | 2.1417 mL | 4.2835 mL |
| 10 mM | 0.2142 mL | 1.0709 mL | 2.1417 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.35 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.35 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Duocarmycin TM (CBI-TMI) is a potent antitumor antibiotic. Duocarmycin TM induces a sequence-selective alkylation of duplex DNA.

**$IC_{50}$ & Target**

Duocarmycins

**In Vitro**

Duocarmycin TM (60 μM; 4 d; BJAB and WSU-DLCL2 cells) is a cytotoxic agent that inhibits the proliferation of tumor cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

| | |
|---|---|
| Cell Line: | BJAB and WSU-DLCL2 cells |
| Concentration: | 60 μM |
| Incubation Time: | 4 days |
| Result: | Inhibited the proliferation of tumor cells with $IC_{50}$ values of 0.153 μM and 0.079μM for BJAB and WSU-DLCL2 cells, respectively. |

## CUSTOMER VALIDATION

- Cell Chem Biol. 2021 Oct 23;S2451-9456(21)00439-6.

See more customer validations on www.MedChemExpress.com

## REFERENCES

[1]. Zhang D, et, al. Immolation of p-Aminobenzyl Ether Linker and Payload Potency and Stability Determine the Cell-Killing Activity of Antibody-Drug Conjugates with Phenol-Containing Payloads. Bioconjug Chem. 2018 Feb 21;29(2):267-274.



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