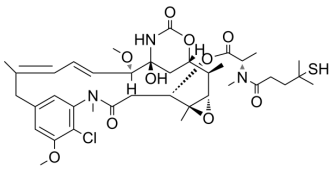
DM4

Cat. No.:	HY-12454
CAS No.:	796073-69-3
Molecular Formula:	$C_{38}H_{54}ClN_3O_{10}S$
Molecular Weight:	780.37
Target:	Microtubule/Tubulin; ADC Cytotoxin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Antibody-drug Conjugate/ADC Related
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (128.14 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.2814 mL	6.4072 mL	12.8144 mL
	5 mM	0.2563 mL	1.2814 mL	2.5629 mL
	10 mM	0.1281 mL	0.6407 mL	1.2814 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 (3.20 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (3.20 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DM4 is is an antitubulin agent that inhibit cell division. DM4 can be used in the preparation of antibody agent conjugate.

In Vitro

DM4, a structural analogue of maytansine, is a new thiol-containing and potent maytansinoid. DM4 is a cytotoxic maytansinoid drug. It is synthesized in order to link maytansinoids to antibodies via disulfide bonds. Maytansinoids inhibit tubulin polymerization and microtubule assembly and enhance microtubule destabilization, so there is potent suppression of microtubule dynamics resulting in a mitotic block and subsequent apoptotic cell death[1].

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

CUSTOMER VALIDATION

- Oral Dis. 2023 Aug 31.
- J Pharm Biomed Anal. 2023 Oct 25, 235, 115642.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Tang R, et al. P-gp activity is a critical resistance factor against AVE9633 and DM4 cytotoxicity in leukaemia cell lines, but not a major mechanism of chemoresistance in cells from acute myeloid leukaemia patients. BMC Cancer. 2009 Jun 23;9:199.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA