

D8-MMAD

Chemical Properties

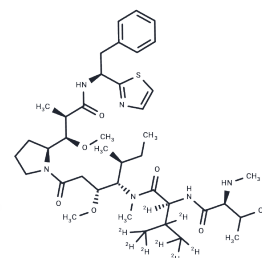
CAS No. :

Formula: C₄₁H₅₈D₈N₆O₆S

Molecular Weight: 779.11

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	D8-MMAD is a deuterated form of MMAD (T4677), which is a microtubule destroyer.
In vitro	MMAD (monomethyl Dolastatin 10) is coupled through a stable oxime ligation process to produce several nearly uniform antibody-drug conjugates (ADC) with a pharmacodynamic ratio of approximately 2.0. The resulting conjugate showed good pharmacokinetic properties and had strong in vitro cytotoxic activity against HER2 + cancer cells. Compared with ADCs prepared by cysteine alkylation after reduction of natural interchain disulfide bonds, site-based unnatural amino acid-based ADCs have higher cytotoxicity in vitro.
In vivo	The resulting antibody-drug conjugate (ADC) showed complete tumor regression in rodents. Their toxicological characteristics in rats have also been improved.

Solubility Information

Solubility	DMSO: 100 mg/mL (128.35 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2835 mL	6.4176 mL	12.8352 mL
5 mM	0.2567 mL	1.2835 mL	2.567 mL
10 mM	0.1284 mL	0.6418 mL	1.2835 mL
50 mM	0.0257 mL	0.1284 mL	0.2567 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Chudasama V, et al. Recent advances in the construction of antibody-drug conjugates. Nat Chem. 2016 Feb;8(2): 114-9.

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