

MMAD

Chemical Properties

CAS No. : 203849-91-6

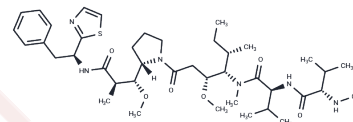
Formula: C₄₁H₆₆N₆O₆S

Molecular Weight: 771.06

Keep away from direct sunlight

Storage: Powder: -20°C for 3 years

Actual storage temperature shall be subject to the COA.



Biological Description

Description	MMAD (Demethyl dolastatin 10) is a potent tubulin inhibitor. MMAD is a toxin payload in antibody drug conjugates (ADCs).
Targets(IC50)	Microtubule Associated,ADC Cytotoxin
In vitro	MMAD (Monomethyl Dolastatin 10) undergoes a stable oxime-ligation to produce several nearly homogenous antibody-drug conjugates (ADCs) with a drug-to-antibody ratio of approximately 2.0. These conjugates exhibit favorable pharmacokinetic properties and potent in vitro cytotoxicity against HER2+ cancer cells. Furthermore, ADCs synthesized using site-specific unnatural amino acids display enhanced in vitro cytotoxicity compared to those prepared through cysteine alkylation after native interchain disulfide reduction.
In vivo	The resulting antibody-drug conjugates (ADCs) demonstrated complete tumor regression in rodents and showed an improved toxicology profile in rats.

Solubility Information

Solubility	DMSO: 24.5 mg/mL (31.77 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2969 mL	6.4846 mL	12.9692 mL
5 mM	0.2594 mL	1.2969 mL	2.5938 mL
10 mM	0.1297 mL	0.6485 mL	1.2969 mL
50 mM	0.0259 mL	0.1297 mL	0.2594 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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