

## MMAD

**Catalog No: tcsc1613** 

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

**Size:** 100mg

**Specifications** 

#### CAS No:

203849-91-6

#### Formula:

 $C_{41}H_{66}N_{6}O_{6}S$ 

## Pathway:

Cell Cycle/DNA Damage;Cytoskeleton;Antibody-drug Conjugate/ADC Related

### **Target:**

Microtubule/Tubulin; Microtubule/Tubulin; ADC Cytotoxin

## Purity / Grade:

>98%

## Solubility:

DMSO : 24.5 mg/mL (31.77 mM; Need ultrasonic and warming)

## **Alternative Names:**

Demethyldolastatin 10;Monomethylauristatin D;Monomethyl Dolastatin 10

# **Observed Molecular Weight:** 771.06

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## **Product Description**

MMAD is a potent **tubulin** inhibitor, is a toxin payload in antibody drug conjugates (**ADCs**).

IC50 & Target: Tubulin<sup>[1]</sup>

*In Vitro:* MMAD (Monomethyl Dolastatin 10) is coupled through a stable oxime-ligation process to yield several near-homogenous antibody-drug conjugates (ADCs) with a drug-to-antibody ratio of ~2.0. The resulting conjugates demonstrate good pharmacokinetic properties, potent in vitro cytotoxic activity against HER2+ cancer cells. When compared with ADCs prepared by cysteine alkylation following native interchain disulfide reduction, site-specific unnatural-amino-acid-based ADCs are shown to have increased in vitro cytotoxicity<sup>[1]</sup>.

*In Vivo:* The resulting antibody-drug conjugates (ADCs) demonstrate complete tumour regression in rodents. They also have an improved toxicology profile in rats<sup>[1]</sup>.



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