

# MMAF (Hydrochloride)

Catalog No: tcsc3105



## Available Sizes

**Size:** 2mg

**Size:** 5mg

**Size:** 10mg



## Specifications

**CAS No:**

1415246-68-2

**Formula:**

$C_{39}H_{66}ClN_5O_8$

**Pathway:**

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

**Target:**

Microtubule/Tubulin;Microtubule/Tubulin;ADC Cytotoxin

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 27 mg/mL (35.14 mM; Need ultrasonic and warming)

**Alternative Names:**

Monomethylauristatin F Hydrochloride

**Observed Molecular Weight:**

768.42

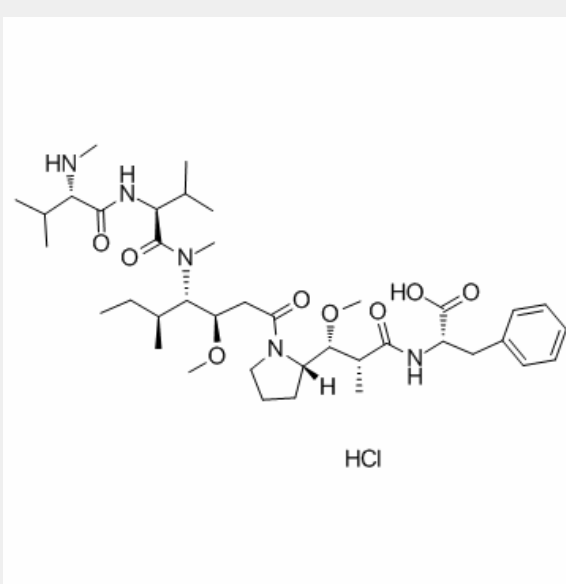
## Product Description

MMAF hydrochloride is an antitubulin agent that inhibit cell division; inhibits H3397 cell growth with an **IC<sub>50</sub>** of 105 nM.

IC50 & Target: IC50: 119 nM (Cytotoxicity, Karpas 299 cell), 105 nM (Cytotoxicity, H3396 cell), 257 nM (Cytotoxicity, 786-O cell), 200 nM (Cytotoxicity, Caki-1, cell)<sup>[1]</sup>

***In Vitro:*** MMAF shows *in vitro* cytotoxicity against a panel of cell lines. The IC<sub>50</sub> values for Karpas 299, H3396, 786-O and Caki-1 are 119, 105, 257, and 200 nM, respectively. Targeted MMAF is much more potent than the free drug, and that cAC10 conjugates of MMAF display pronounced activities. On a molar basis, the cAC10-L1-MMAF<sub>4</sub> is an average of over 2200-fold more potent than free MMAF and is active on all the CD30-positive cell lines tested<sup>[1]</sup>.

***In Vivo:*** The maximum tolerated dose in mice of MMAF (>16 mg/kg) is much higher than MMAE (1 mg/kg). cAC10-L1-MMAF<sub>4</sub> has an MTD of 50 mg/kg in mice and 15 mg/kg in rats. The corresponding cAC10-L4-MMAF<sub>4</sub> ADC was much less toxic, having MTDs in mice and rats of >150 mg/ kg and 90 mg/kg in rats, respectively<sup>[1]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!