Web: www.taiclone.com
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D8-MMAF

Catalog No: tcsc6855

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Specifications

Formula:
$C_{39}H_{57}D_8N_5O_8$

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

Target:
Microtubule/Tubulin;Microtubule/Tubulin;ADC Cytotoxin

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
Monomethylauristatin F D8

Observed Molecular Weight:
740.01

Product Description

D8-MMAF is a deuterated form of MMAF, which is a **microtubule** disrupting agent.

IC50 & Target: IC50: 119 nM (Cytotoxicity, Karpas 299 cell), 105 nM (Cytotoxicity, H3396 cell), 257 nM (Cytotoxicity, 786-O cell), 200

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nM (Cytotoxicity, Caki-1, cell)[1]

In Vitro: MMAF shows *in vitro* cytotoxicity against a panel of cell lines. The IC_{50} 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-$MMAF_4$ is an average of over 2200-fold more potent than free MMAF and is active on all the CD30-positive cell lines tested[1].

In Vivo: The maximum tolerated dose in mice of MMAF (>16 mg/kg) is much higher than MMAE (1 mg/kg). cAC10-L1-$MMAF_4$ has an MTD of 50 mg/kg in mice and 15 mg/kg in rats. The corresponding cAC10-L4-$MMAF_4$ ADC was much less toxic, having MTDs in mice and rats of >150 mg/ kg and 90 mg/kg in rats, respectively[1].