Web: www.taiclone.com
Tel: +886-2-2735-9682
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# D8-MMAE

## Catalog No: tcsc3368

### Available Sizes

**Size:** 1mg

**Size:** 5mg

**Size:** 10mg

### Specifications

**CAS No:**
2070009-72-0

**Formula:**
$C_{39}H_{59}D_8N_5O_7$

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

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

**Purity / Grade:**
>98%

**Solubility:**
DMSO : ≥ 40 mg/mL (55.09 mM)

**Alternative Names:**
D8-Monomethyl auristatin E;D8-Vedotin

**Observed Molecular Weight:**
726.03

## Product Description

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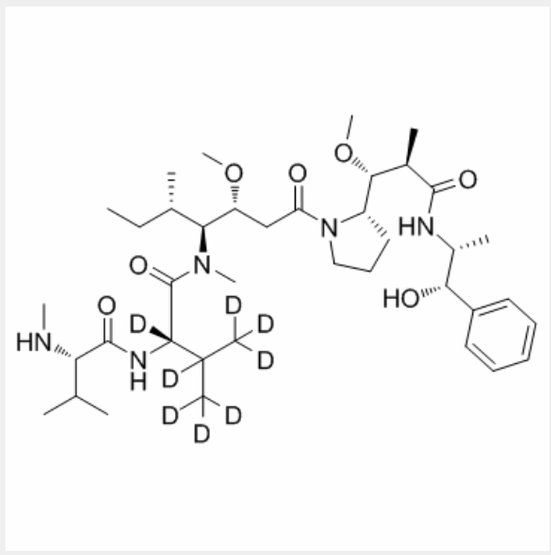
D8-MMAE is a deuterated form of MMAE, which is a **microtubule**-disrupting agent.

IC50 & Target: Microtubule[1]

***In Vitro:*** Antibody-drug conjugates (ADC) comprise targeting antibodies armed with potent small-molecule payloads. ADCs are generated to target different receptors on the anaplastic large cell lymphoma line L-82, but delivered the same cytotoxic payload (monomethyl auristatin E, MMAE), and the intracellular concentration of released MMAE correlated with in vitro ADC-mediated cytotoxicity independent of target expression or drug:antibody ratios. LC-MS is used to measure the concentration of MMAE in a parallel cohort of L-82 tumors with an identical treatment regimen. Although tumor volume is not different among treatment groups 3 days after dose, the intratumoral MMAE measurement reveals two patterns. First, intratumoral MMAE concentration increases proportionally to the ADC dose, which correspondes to stronger antitumor activity. Second, the intratumoral MMAE concentration obtained from treatment with both cOKT9-vcMMAE and cAC10-vcMMAE is similar at each dose, consistent with the observation that tumor responded similarly to these two ADCs[1].

***In Vivo:*** Intratumoral MMAE concentrations consistently correlates with the extent of tumor growth inhibition in tumor xenograft models. IHC analysis reveals that nonbinding control-treated tumors consist of both $CD30^+$ and $CD30^-$cells, presumably because they do not kill either $CD30^+$ or $CD30^-$ Karpas 299 cells. Only $CD30^-$ cells are found in cAC10-vcMMAF-treated tumors, illustrating that cAC10-vcMMAF eliminates most $CD30^+$ cells. Interestingly, the two tumors that relapses from cAC10-vcMMAE treatment are also found to be $CD30^-$ by the end of study, indicating a small fraction of $CD30^-$ cells might have escaped from bystander killing in these two remaining tumors[1].




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