

**Product Name** : Monomethyl auristatin E

**Synonyms** : MMAE; Vedotin; Monomethyl auristatin E

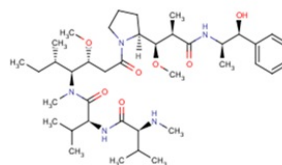
Cat No. : M17516

**CAS Number** : 474645-27-7

**Molecular Formula** : C<sub>39</sub>H<sub>67</sub>N<sub>5</sub>O<sub>7</sub>

**Formula Weight** : 717.98

**Chemical Name** : (S)-2-(((3R,4S,5S)-1-((S)-2-(((1R,2R)-3-(((1S,2R)-1-hydroxy-1-phenylpropan-2-yl)amino)-1-methoxy-2-methyl-3-oxopropyl)pyrrolidin-1-yl)-3-methoxy-5-methyl-1-oxoheptan-4-yl)(methyl)amino)-3-methyl-N-((S)-3-methyl-2-(methylamino)butanoyl)butanamide.



<b>Description</b>	<p>MMAE, also known as Monomethyl auristatin E, is a synthetic antineoplastic agent. Because of its toxicity, it cannot be used as a drug itself; instead, it is linked to a monoclonal antibody (MAB) which directs it to the cancer cells. In International Nonproprietary Names for MMAE-MAB-conjugates, the name vedotin refers to MMAE plus its linking structure to the antibody. MMAE is a potent antimitotic drug derived from peptides occurring in marine shell-less mollusc <i>Dolabella auricularia</i> called dolastatins which show potent activity in preclinical studies, both in vitro and in vivo, against a range of lymphomas, leukemias and solid tumors. MMAE show potency of up to 200 times that of vinblastine, another antimitotic drug used for Hodgkin lymphoma as well as other types of cancer.</p>
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Pathway : Neuroscience

**Target** : Gamma-secretase

**Receptor** : microtubule

**Solubility** : DMSO :  $\geq 48$  mg/mL; 66.85 mM

**SMILES** : C(=O)C(C)[C@H](C(C)C)NC(=O)C[C@H](C(C)C)NC(C)[C@H](C)[C@H](C(C)C)N1C[C@H](CCC1)[C@H](C)[C@H](C(=O)N)C[C@H](C)[C@H](C1CCCC1)O(C)COC(C)C[C@H](CC)C

**Storage** : (-20°C)

**Stability** :  $\geq 2$  years

**Reference :**

1. Francisco JA, et al. *Blood*. 2003, 102(4), 1458-1465.

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