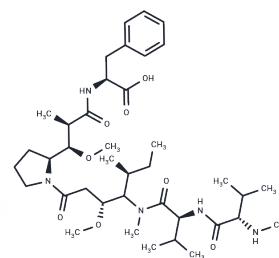


MMAF

Chemical Properties

CAS No. :	745017-94-1
Formula:	C ₃₉ H ₆₅ N ₅ O ₈
Molecular Weight:	731.96
Storage:	Keep away from moisture Powder: -20°C for 3 years <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	MMAF (MonoMethyl auristatin F), an antimetabolic agent, inhibits cell division by blocking the polymerization of tubulin.
Targets(IC50)	Microtubule Associated,ADC Cytotoxin
In vitro	MMAF shows in vitro cytotoxicity against a panel of cell lines. The IC50 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-MMAF4 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-MMAF4 has an MTD of 50 mg/kg in mice and 15 mg/kg in rats. The corresponding cAC10-L4-MMAF4 ADC was much less toxic, having MTDs in mice and rats of >150 mg/kg and 90 mg/kg in rats, respectively[1].
Cell Research	Cells are treated with serial dilutions of test molecules and incubated 4-6 days depending on cell line. Assessment of cellular growth and data reduction to generate IC50 values is done using Alamar Blue dye reduction assay[2].

Solubility Information

Solubility	DMSO: 250 mg/mL (341.55 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3662 mL	6.831 mL	13.6619 mL
5 mM	0.2732 mL	1.3662 mL	2.7324 mL
10 mM	0.1366 mL	0.6831 mL	1.3662 mL
50 mM	0.0273 mL	0.1366 mL	0.2732 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Doronina SO, et al. Enhanced activity of monomethylauristatin F through monoclonal antibody delivery: effects of linker technology on efficacy and toxicity. *Bioconjug Chem.* 2006 Jan-Feb;17(1):114-24.

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