Data Sheet (Cat.No.T19269)

TargetMol

D8-MMAF hydrochloride

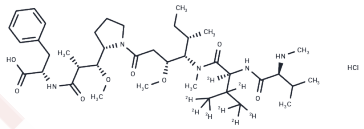
Chemical Properties

CAS No. :

Formula: C39H58D8ClN5O8

Molecular Weight: 776.47

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	D8-MMAF hydrochloride is a deuterated form of MMAF hydrochloride (T16121), which is a microtubule destroyer.
In vitro	MMAF showed cytotoxicity in vitro against a group of cell lines. Karpas 299, H3396, 786-O and Caki-1 have IC50 values of 119, 105, 257 and 200 nM, respectively. Targeted MMAF is more effective than free drug, and the cAC10 conjugate of MMAF shows significant activity. On a molar basis, cAC10-L1-MMAF4 is on average more than 2200 times more potent than free MMAF and is active in all CD30-positive cell lines tested.
In vivo	The maximum tolerated dose of MMAF (> 16 mg / kg) mice is much higher than that of MMAE (1 mg / kg). The MTD of cAC10-L1-MMAF4 is 50 mg / kg in mice and 15 mg / kg in rats. The corresponding cAC10-L4-MMAF4 ADC is much less toxic, with MTDs greater than 150 mg / kg and 90 mg / kg in mice and rats, respectively.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2879 mL	6.4394 mL	12.8788 mL
5 mM	0.2576 mL	1.2879 mL	2.5758 mL
10 mM	0.1288 mL	0.6439 mL	1.2879 mL
50 mM	0.0258 mL	0.1288 mL	0.2576 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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