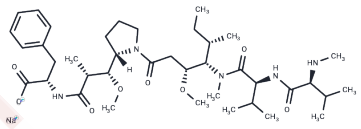
Data Sheet (Cat.No.T16122)

TargetMol

MMAF sodium

Chemical Properties



CAS No. : 1799706-65-2

Formula: C39H64N5NaO8

Molecular Weight: 753.94

Storage: Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	MMAF sodium is widely used as a cytotoxic component of antibody-drug conjugates (ADCs) such as Vorsetuzumab mafodotin and SGN-CD19A. MMAF sodium is an effective tubulin polymerization inhibitor and is used as an antitumor agent.
Targets(IC50)	Microtubule Associated,ABC Transporter,ADC Cytotoxin
In vitro	MMAF suppresses anaplastic large cell lymphoma Karpas 299, breast carcinoma H3396, renal cell carcinoma 786-O, and Caki-1 cells. It has IC50s of 119, 105, 257, and 200 nM in vitro cytotoxicity assay[4].

Solubility Information

Solubility	DMSO: 200 mg/mL (265.27 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 5 mg/mL (6.63 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3264 mL	6.6318 mL	13.2637 mL
5 mM	0.2653 mL	1.3264 mL	2.6527 mL
10 mM	0.1326 mL	0.6632 mL	1.3264 mL
50 mM	0.0265 mL	0.1326 mL	0.2653 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

Lee JW, et al. EphA2 targeted chemotherapy using an antibody drug conjugate in endometrial carcinoma. Clin Cancer Res. 2010 May 1;16(9):2562-70.
Lee JJ, et al. Enzymatic prenylation and oxime ligation for the synthesis of stable and homogeneous protein-drug conjugates for targeted therapy. Angew Chem Int Ed Engl. 2015 Oct 5;54(41):12020-4.
Kim EG, et al. Strategies and Advancement in Antibody-Drug Conjugate Optimization for Targeted CancerTherapeutics.
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.