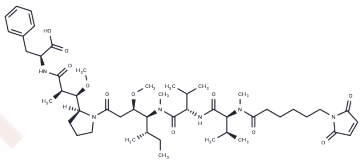
Data Sheet (Cat.No.T16031)

TargetMol

McMMAF

Chemical Properties



CAS No. : 863971-19-1

Formula: C49H76N6O11

Molecular Weight: 925.16

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

Biological Description

Description	McMMAF is a protective group-conjugated MMAF. MMAF is a potent tubulin polymerization inhibitor.It is a MMAF derivative having a Maleimidocaproyl linker (MC linker), which is ready to conjugate to antibody or other proteins or biopolymers. Mafodotin is a useful agent for make antibody drug conjugate (ADC) for targeted drug delivery.
Targets(IC50)	Apoptosis,Microtubule Associated,Drug-Linker Conjugates for ADC
In vitro	MMAF induces potent antitumor effects when conjugated via protease cleavable linkers to a monoclonal antibody targeting internalizing, tumor-specific cell surface antigens. MMAF is a new auristatin derivative with a charged C-terminal phenylalanine that attenuates its cytotoxic activity compared to its uncharged counterpart, Monomethyl auristatin E (MMAE). It cannot be used as a drug itself because MMAF is highly toxic. The linker to the monoclonal antibody is stable in extracellular fluid but is cleaved by cathepsin once the conjugate has entered a tumor cell, thus activating the anti-mitotic mechanism.

Solubility Information

Solubility	DMSO: 150 mg/mL (162.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (10.81 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (10.81 mM),Solution. *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	1.0809 mL	5.4045 mL	10.8089 mL
5 mM	0.2162 mL	1.0809 mL	2.1618 mL
10 mM	0.1081 mL	0.5404 mL	1.0809 mL
50 mM	0.0216 mL	0.1081 mL	0.2162 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

Polson AG, et al. Antibody-drug conjugates for the treatment of non-Hodgkin's lymphoma: target and linker-drug selection. Cancer Res. 2009 Mar 15;69(6):2358-2364.
Jianmin Fang, et al. Anti-her2 antibody and conjugate thereof. US 20160304621 A1.