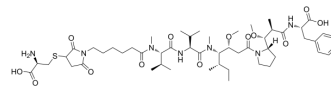


Cys-McMMAF

Cat. No.:	HY-150233
CAS No.:	1160590-05-5
Molecular Formula:	C ₅₂ H ₈₃ N ₇ O ₁₃ S
Molecular Weight:	1046.32
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 200 mg/mL (191.15 mM; Need ultrasonic)																							
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th colspan="3">Mass</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>Preparing Stock Solutions</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1 mM</td> <td>0.9557 mL</td> <td>4.7787 mL</td> <td>9.5573 mL</td> </tr> <tr> <td>5 mM</td> <td>0.1911 mL</td> <td>0.9557 mL</td> <td>1.9115 mL</td> </tr> <tr> <td>10 mM</td> <td>0.0956 mL</td> <td>0.4779 mL</td> <td>0.9557 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass			1 mg	5 mg	10 mg	Preparing Stock Solutions				1 mM	0.9557 mL	4.7787 mL	9.5573 mL	5 mM	0.1911 mL	0.9557 mL	1.9115 mL	10 mM	0.0956 mL	0.4779 mL	0.9557 mL
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	Please refer to the solubility information to select the appropriate solvent.																							
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 5 mg/mL (4.78 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 5 mg/mL (4.78 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5 mg/mL (4.78 mM); Clear solution 																							

BIOLOGICAL ACTIVITY

Description	Cys-McMMAF is the released payload of AlMcMMAF, an anti-5T4 humanized A1 antibody conjugated to the microtubule disrupting MMAF (HY-15579) via a maleimidocaproyl linker. Cys-McMMAF has antitumor efficacy in two tumor mouse models (H1975 and MDA-MB-361-DYT2 models) ^[1] .
In Vivo	Cys-McMMAF (0.3 mg/kg, 3 mg/kg; i.v.; single dose) has a poor stability with short decline time in cynomolgus monkeys ^[1] . Pharmacokinetic Analysis in Nude (nu/nu) Mice ^[1]

Model/IV	Dose (mg/kg)	C _{max} (ng/mL)	T _{max} (hr)	AUC ₀₋₃₃₆ (ng·h/mL)	t _{1/2} (day)
Non-Tumor	1	0.192	8	14.6	2.1
Tumor	1	0.146	8	28.2	6.0
Non-Tumor	10	0.951	8	58.5	3.0
Tumor	10	0.945	8	81.9/td>	2.9

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Leal M, et al. Preclinical Development of an anti-5T4 Antibody-Drug Conjugate: Pharmacokinetics in Mice, Rats, and NHP and Tumor/Tissue Distribution in Mice. *Bioconjug Chem.* 2015 Nov 18;26(11):2223-32.

Caution: Product has not been fully validated for medical applications. For research use only.

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