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产品名称: **Mc-MMAE**

产品别名: **Maleimidocaproyl-monomethylauristatin E**

生物活性:					
Description	Mc-MMAE is a protective group (maleimidocaproyl)-conjugated monomethyl auristatin E (MMAE), which is a potent tubulin inhibitor. Mc-MMAE is a drug-linker conjugate for ADC.				
IC ₅₀ & Target	Auristatin				
In Vitro	Synthesis of maleimidocaproyl-MMAE (mc-MMAE) requires the addition of maleimidocaproic acid to a solution of MMAE in dichloromethane followed by the addition of diethyl cyanophosphonate and diisopropylethylamine[1].				
Solvent&Solubility	In Vitro: DMSO : ≥ 51 mg/mL (55.97 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	1.0975 mL	5.4874 mL	10.9748 mL
		5 mM	0.2195 mL	1.0975 mL	2.1950 mL
		10 mM	0.1097 mL	0.5487 mL	1.0975 mL
	*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80°C, 6 months; -20°C, 1 month (stored under nitrogen)。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。				
References	[1]. Sanderson RJ, et al. In vivo drug-linker stability of an anti-CD30 dipeptide-linked auristatin immunoconjugate. Clin Cancer Res. 2005 Jan 15;11(2 Pt 1):843-52.				
实验参考:					
Kinase Assay	Horseradish peroxidase (HRP) is thiolated with 2-iminothiolane and conjugated to mc-MMAE to generate the HRP-MMAE reporter enzyme-drug conjugate. Briefly, a thiolation reaction mixture containing 0.2 mM HRP (8 mg/mL) and 50 mM 2-iminothiolane in 25 mM sodium borate decahydrate (Na ₂ B ₄ O ₇ •10H ₂ O) buffer (pH 9.0) is incubated for 1 hour at 37°C. Unreacted 2-iminothiolane is removed by passage through a PD-10 desalting column equilibrated in PBS (pH 7.4). Peak fractions are pooled and mc-MMAE is coupled to thiolated HRP (HRP-SH) at a molar ratio of 3:1. The final conjugation reaction mixture contained 80 μM HRP-SH (3.2 mg/mL) in sodium borate buffer [50 mM H ₃ BO ₃ , 50 mM NaCl (pH 8.0); 80% v/v] and 240 μM mc-MMAE in ice-cold CH ₃ CN (20% v/v). After 30 minutes on ice, the reaction is terminated with a 20-fold molar excess of free cysteine (4.8 mM) before PD-10 chromatography. Peak fractions containing HRP-MMAE (exchanged into PBS) are pooled and evaluated for extent of modification using the thiol-reactive dye, Alexa Fluor 594 C ₅ maleimide[1].				
References	[1]. Sanderson RJ, et al. In vivo drug-linker stability of an anti-CD30 dipeptide-linked auristatin immunoconjugate. Clin Cancer Res. 2005 Jan 15;11(2 Pt 1):843-52.				