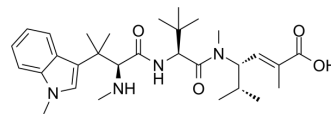


Hemiasterlin

Cat. No.:	HY-117371
CAS No.:	157207-90-4
Molecular Formula:	C ₃₀ H ₄₆ N ₄ O ₄
Molecular Weight:	526.71
Target:	ADC Cytotoxin
Pathway:	Antibody-drug Conjugate/ADC Related
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (189.86 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	1.8986 mL	9.4929 mL	18.9858 mL
				5 mM	0.3797 mL	1.8986 mL	3.7972 mL
				10 mM	0.1899 mL	0.9493 mL	1.8986 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.75 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.75 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.75 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	Hemiasterlin ((-)-Hemiasterlin) is an antimetabolic marine natural product with potent anticancer effects. Hemiasterlin can be used as a cytotoxic payload (ADC Cytotoxin) in antibody-drug conjugates (ADCs) ^[1] .
IC ₅₀ & Target	Pyrrrolbenzodiazepines
In Vitro	Hemiasterlin is an antimetabolic agent by disrupting microtubule dynamics causing mitotic arrest and cell death with low- to sub-nanomolar potencies against several cancer cell lines ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jiraborrirak Charoenpattarapreeda, et al. Expeditious Total Synthesis of Hemiasterlin through a Convergent Multicomponent Strategy and Its Use in Targeted Cancer Therapeutics. *Angew Chem Int Ed Engl.* 2020 Dec 14;59(51):23045-23050.

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

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