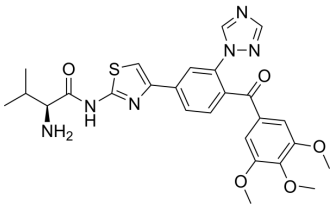
Valecobulin

Cat. No.:	HY-13598
CAS No.:	1188371-47-2
Molecular Formula:	$C_{26}H_{28}N_6O_5S$
Molecular Weight:	536.6
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (232.95 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8636 mL	9.3179 mL	18.6359 mL
	5 mM	0.3727 mL	1.8636 mL	3.7272 mL
	10 mM	0.1864 mL	0.9318 mL	1.8636 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: ≥ 2.08 mg/mL (3.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Valecobulin (CKD516) is a valine proagent of (S516) and a vascular disrupting agent (VDA). Valecobulin is a potent β-tubulin polymerization inhibitor with marked antitumor activity against murine and human solid tumors[1][2].

IC_{50} & Target

β-tubulin polymerization[1].

In Vivo

Valecobulin (5 mg/kg; intraperitoneal injection; administered on days 2, 6, 10, and 14; male BALB/C nu/nu mice) treatment shows markedly antitumor efficacy in various human tumor xenograft models[1].

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

Animal Model:	Male BALB/C nu/nu mice (5-6 weeks of age) with HCT-116 or HCT-15 cells[1]
Dosage:	5 mg/kg
Administration:	Intraperitoneal injection; administered on days 2, 6, 10, and 14
Result:	Had shown marked antitumor efficacy in various human tumor xenograft models.

REFERENCES

[1]. Lee J, et al. Identification of CKD-516: a potent tubulin polymerization inhibitor with marked antitumor activity against murine and human solid tumors. J Med Chem. 2010 Sep 9;53(17):6337-54.

[2]. Joo I, et al. Intravoxel incoherent motion diffusion-weighted MR imaging for monitoring the therapeutic efficacy of the vascular disrupting agent CKD-516 in rabbit VX2 liver tumors. Radiology. 2014 Aug;272(2):417-26.

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