Valecobulin hydrochloride

Cat. No.: HY-13598A

CAS No.: 1240321-53-2

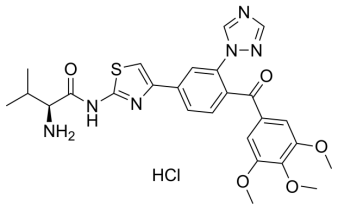
Molecular Formula: $C_{26}H_{29}ClN_6O_5S$

Molecular Weight: 573.06

Target: Microtubule/Tubulin

Pathway: Cell Cycle/DNA Damage; Cytoskeleton

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (218.13 mM; Need ultrasonic)
H_2O : 50 mg/mL (87.25 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7450 mL	8.7251 mL	17.4502 mL
5 mM	0.3490 mL	1.7450 mL	3.4900 mL
10 mM	0.1745 mL	0.8725 mL	1.7450 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (87.25 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.25 mg/mL (3.93 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.25 mg/mL (3.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Valecobulin hydrochloride (CKD-516 hydrochloride) is a valine proagent of S516 (HY-130233) and a vascular disrupting agent (VDA). Valecobulin hydrochloride 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA