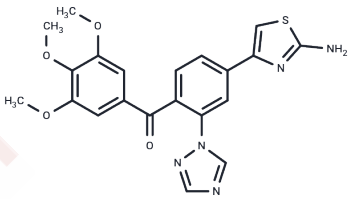
Data Sheet (Cat.No.T12823)

TargetMol

S516

Chemical Properties



CAS No. : 1016543-77-3

Formula: C21H19N5O4S

Molecular Weight: 437.47

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	S516 is an active CKD-516 metabolite and is a potent inhibitor of tubulin polymerization (IC50 of 4.29 μM), has marked antitumor activity.
Targets(IC50)	Microtubule Associated
In vitro	S516 has potent cytotoxicity(HL-60, HCT116 and HCT15 cells with IC50s of 4.8 nM, 42.8 nM and 24.9 nM, respectively). S516 (30 nM; 16 hours; HL60 cells) treatmemt causes significant arrest of cells at the G2/M phase, resulting in apoptosis with concomitant loss of G0/G1 phase.
In vivo	In human LX-1 lung cancer and CX-1 colon cancer mouse xenografts,S516 (5-10 mg/kg; intraperitoneal injection; mice) treatment has promising antitumor activity (inhibition ratio (IR)> 63%) .

Solubility Information

Solubility	DMSO: 12.5 mg/mL (28.57 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 1 mg/mL (2.29 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2859 mL	11.4294 mL	22.8587 mL
5 mM	0.4572 mL	2.2859 mL	4.5717 mL
10 mM	0.2286 mL	1.1429 mL	2.2859 mL
50 mM	0.0457 mL	0.2286 mL	0.4572 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.