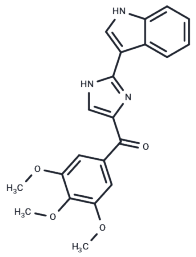
Data Sheet (Cat.No.T17228)

TargetMol

Sabizabulin

Chemical Properties



CAS No. : 1332881-26-1

Formula: C21H19N3O4

Molecular Weight: 377.39

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	Sabizabulin (ABI-231) is a potent, orally bioavailable α- and β-tubulin inhibitor that is active against melanoma and prostate cancer cell lines. Sabizabulin inhibits tumor growth and metastatic phenotypes of cervical cancer cells by targeting HPV E6 and E7 and is also being studied in prostate cancer.
Targets(IC50)	Apoptosis,Microtubule Associated,Virus Protease
In vitro	**METHODS**: BT474 and SKBR3 cells were treated with Sabizabulin (ABI-231) (4, 8, 12, 16 nM), and cell growth inhibition was measured by MTS assay. **RESULTS** Sabizabulin (ABI-231) significantly inhibited the growth of BT474 and SKBR3 cells in a concentration-dependent manner with IC50 values of 9.07 and 8.18 nM, respectively, and had low cytotoxicity. [1]
In vivo	**METHODS**: Sabizabulin (ABI-231) (17 mg/kg/20 mg/kg, oral, three weeks) was used to treat BT474 xenograft/HCI-12 PDX model mice and its therapeutic effect was observed. **RESULTS** Sabizabulin (ABI-231) significantly reduced the tumor volume and tumor wet weight of terminal BT474 xenograft mice, inhibited tumor growth and suppressed lung metastasis in HCI-12 PDX model mice. [1]

Solubility Information

Solubility	DMSO: 50 mg/mL (132.49 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: 2 mg/mL (5.3 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	2.6498 mL	13.2489 mL	26.4978 mL
5 mM	0.530 mL	2.6498 mL	5.2996 mL
10 mM	0.265 mL	1.3249 mL	2.6498 mL
50 mM	0.053 mL	0.265 mL	0.530 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

Krutilina RI,et al. Sabizabulin, a Potent Orally Bioavailable Colchicine Binding Site Agent, Suppresses HER2+ Breast Cancer and Metastasis. Cancers (Basel). 2022 Oct 29;14(21):5336.
Wang Q, et al. Structure-Guided Design, Synthesis, and Biological Evaluation of (2-(1H-Indol-3-yl)-1H-imidazol-4-yl)(3,4,5-trimethoxyphenyl) Methanone (ABI-231) Analogues Targeting the Colchicine Binding Site in Tubulin. J Med Chem. 2019 Jul 25;62(14):6734-6750.
Qinghui Wang, et al. Discovery of ABI-231 analogs targeting the colchicine site in tubulin for advanced melanoma. Cancer Research 76(14 Supplement):4848-4848.
Vivek Kashyap, et al. ABI-231: A novel small molecule suppresses tumor growth and metastatic phenotypes of cervical cancer cells via targeting Human papilloma virus (HPV) E6 and E7. Cancer Research 78(13 Supplement): 679-679.