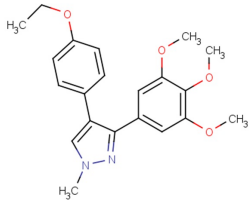
Data Sheet (Cat.No.T13227)

TargetMol
A DRUG SCREENING EXPERT

Tubulin inhibitor 1

Chemical Properties



CAS No.:	2237054-53-2
Formula:	C21H24N2O4
Molecular Weight:	368.43
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Tubulin inhibitor 1 is an inhibitor of tubulin, inhibits tubulin polymerization, with potent anti-tumor activity, induces cellular apoptosis causes and cellular mitotic arrest in the G2/M phase.
Targets(IC_{50})	Tubulin: None
In vitro	Tubulin inhibitor 1 has potent anti-proliferative activity against SK-OV-3, MDA-MB-231, HeLa, A549, CT26 and MCF-7 cells (IC50s: 16.7 ± 3.0, 31.4 ± 0.7, 32.8 ± 2.9, 67.0 ± 0.8, 58.0 ± 2.4 and 35.4 ± 5.6 nM, respectively). Tubulin inhibitor 1 (40, 80, and 160 nM, 48 hours) markedly causes cellular mitotic arrest in the G2/M phase, induces apoptosis in SK-OV-3 cells.
In vivo	In Balb/c nude mice bearing SK-OV-3 cells, Tubulin inhibitor 1 (50 mg/kg, i.p.,)treatment every two days three times for 20-25 days is well-tolerated, significantly reduces tumor growth.

Solubility Information

Solubility	DMSO: 125 mg/mL (339.28 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.714 mL	13.571 mL	27.142 mL
5 mM	0.543 mL	2.714 mL	5.428 mL
10 mM	0.271 mL	1.357 mL	2.714 mL
50 mM	0.054 mL	0.271 mL	0.543 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Lai Q, et al. Design, synthesis and biological evaluation of a novel tubulin inhibitor 7a3. Eur J Med Chem. 2018 Aug 5;156:162-179.

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