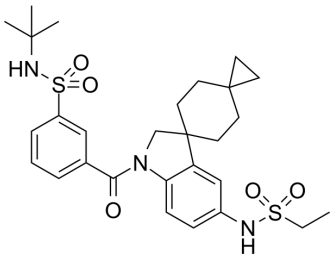
KIF18A-IN-6

Cat. No.:	HY-153065
CAS No.:	2914879-10-8
Molecular Formula:	$C_{28}H_{37}N_3O_5S_2$
Molecular Weight:	559.74
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (223.32 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7865 mL	8.9327 mL	17.8654 mL
	5 mM	0.3573 mL	1.7865 mL	3.5731 mL
	10 mM	0.1787 mL	0.8933 mL	1.7865 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.72 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

KIF18A-IN-6 (Compound 134) is an orally active KIF18A inhibitor with an IC_{50} of 0.016 μM against KIF18A microtubule-dependent ATPase activity[1].

IC_{50} & Target

IC50: 0.016 μM (KIF18A microtubule-dependent ATPase activity)[1]

In Vitro

KIF18A-IN-6 (Compound 134; 7 days) inhibits JIMT-1, HCC-15 and NIH-OVCAR3 cells viability with IC_{50}s of 0.0040, 0.0051 and 0.0051 μM, respectively[1].

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

Cell Viability Assay[1]

Cell Line:	HCC-15, JIMT-1 and NIH-OVCAR3
Concentration:	

Incubation Time:	7 days
Result:	Inhibited cell viability with IC_{50}s of 0.0040, 0.0051 and 0.0051 μM against JIMT-1, HCC-15 and NIH-OVCAR3 cells, respectively.

In Vivo

KIF18A-IN-6 (Compound 134; 10-60 mg/kg; p.o.; twice or once a day for 1 month) inhibits HCC15 and OVCAR3 tumor growth in mice[1].

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

Animal Model:	SCID Beige mice, HCC15 tumor model[1]
Dosage:	10, 30 and 60 mg/kg
Administration:	PO, twice a day for 1 month
Result:	Inhibited tumor growth by 61±10%, 89±7% and 94±5% at 10, 30 and 60 mg/kg, respectively.

Animal Model:	Balb/C nude mice, OVCAR3 tumor model[1]
Dosage:	10, 30 and 60 mg/kg
Administration:	PO, twice or once a day for 1 month
Result:	Completely inhibited tumor growth (over 100%) over 30 mg/kg.

REFERENCES

[1]. COGAN, et al. SPIRO INDOLINE INHIBITORS OF KIF18A. Patent WO2023028564.

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