TBK1-IN-1

Cat. No.: HY-152237

Molecular Formula: $C_{27}H_{35}N_7O_2$

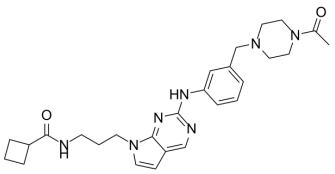
Molecular Weight: 489.61

Target: IKK

Pathway: NF-κB

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (204.24 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0424 mL	10.2122 mL	20.4244 mL
	5 mM	0.4085 mL	2.0424 mL	4.0849 mL
	10 mM	0.2042 mL	1.0212 mL	2.0424 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (5.11 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.11 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (5.11 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

TBK1-IN-1 is a potent and selective TANK binding kinase 1 (TBK1) inhibitor with an IC_{50} value of 22.4 nM. TBK1-IN-1 inhibits TBK1 downstream target genes cxcl10 and ifnβ expression. TBK1-IN-1 has anticancer activity[1].

IC_{50} & Target

TBK1
22.4 nM (IC_{50})

In Vitro

TBK1-IN-1 (compound 7l; 0.1 and 1 μM; 2 h) inhibitsTBK1 downstream target genes cxcl10 and ifnβ expression in THP1 and RAW264.7 cells induced by poly (I:C) and lipopolysaccharide, respectively[1].
TBK1-IN-1 (1-100 μM; 72 h) has moderate antiproliferative activities against A549 and LLC with IC_{50} values of 17.6 and 9.4 μM,

respectively[1].

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

Cell Viability Assay[1]

Cell Line:	A549 and LLC cells
Concentration:	1-100 μM
Incubation Time:	72 hours
Result:	Inhibited cell growth in a dose-dependent manner. Suppressed the phosphorylation of TBK1 downstream signaling effector protein S6K.

REFERENCES

[1]. Vassilev LT, et, al. In vivo activation of the p53 pathway by small-molecule antagonists of MDM2. Science. 2004 Feb 6;303(5659):844-8.

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