TDI-011536

Cat. No.: HY-150042

CAS No.: 2687970-96-1

Molecular Formula: $C_{19}H_{16}N_4O_2S$

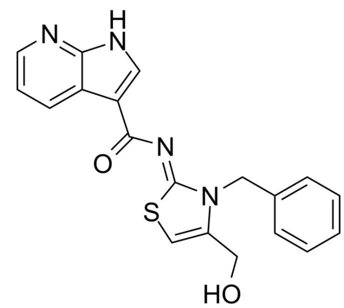
Molecular Weight: 364.42

Target: YAP

Pathway: Stem Cell/Wnt

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 : 125 mg/mL (343.01 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.7441 mL	13.7204 mL	27.4409 mL
5 mM	0.5488 mL	2.7441 mL	5.4882 mL
10 mM	0.2744 mL	1.3720 mL	2.7441 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: ≥ 2.08 mg/mL (5.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TDI-011536 is a potent Lats kinase inhibitor, interrupts Hippo-Yap signaling and initiates the proliferation of lesioned heartmuscle cells. TDI-011536 can be used in studies of organ conservation and regeneration[1].

IC_{50} & Target

Lats kinase[1].

In Vitro

TDI-011536 (3 μM; 24 h) reduces Yap phosphorylation and (3 μM; 5 days) induces proliferation of Müller glia in human retinal organoids[1].

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

Cell Proliferation Assay[1]

Cell Line:	human retinal organoids
Concentration:	3 μM
Incubation Time:	24 h, 5 days
Result:	Supressed Yap phosphorylation and promoted Müller glia proliferation.

In Vivo

TDI-011536 (200 mg/kg; i.p.; once) provides over 4 h of Lats inhibition in the liver, heart, and skin and reduces the amount of pYap for at least 4 h after injection in all three organs[1].
TDI-011536 (100 mg/kg; i.p.; once daily for 2 or 3 days) shows proliferative effect on cardiomyocytes[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Living mice (immunoblot analysis of the heart, liver, and skin immediately after injection) [1].
Dosage:	200 mg/kg
Administration:	Intraperitoneal injections; once.
Result:	Reduced the amount of pYap for at least 4 h after injection in all three organs and the levels returned to control values within a day.

Animal Model:	Male 8-week-old mice (cryolesion model)[1].
Dosage:	100 mg/kg
Administration:	Intraperitoneal injections; once daily for 2 or 3 days.
Result:	Promoted cardiomyocytes proliferation.

REFERENCES

[1]. Kastan NR, et al. Development of an improved inhibitor of Lats kinases to promote regeneration of mammalian organs. Proc Natl Acad Sci U S A. 2022 Jul 12;119(28):e2206113119.

Caution: Product has not been fully validated for medical applications. For research use only.

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