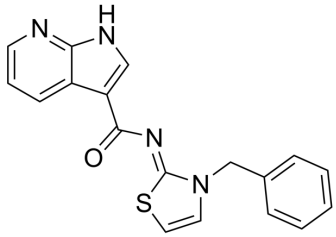
TRULI

Cat. No.:	HY-138489
CAS No.:	1424635-83-5
Molecular Formula:	$C_{18}H_{14}N_4OS$
Molecular Weight:	334.39
Target:	YAP
Pathway:	Stem Cell/Wnt
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 1 year -20°C 6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (149.53 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9905 mL	14.9526 mL	29.9052 mL
	5 mM	0.5981 mL	2.9905 mL	5.9810 mL
	10 mM	0.2991 mL	1.4953 mL	2.9905 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.48 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.48 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (6.22 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TRULI (Lats-IN-1) is a potent and ATP-competitive inhibitor of Lats1 and Lats2 kinases. TRULI promotes Yap-dependent proliferation in postmitotic mammalian tissues[1].

In Vitro

The IC_{50} for TRULI increases with the ATP concentration[1].
TRULI (10 μM; 24 hours) interferes with the ability of Lats kinases to phosphorylate Yap, with an EC_{50} of 510 nM[1].
TRULI causes Yap-dependent proliferation of murine supporting cells in the inner ear, murine cardiomyocytes, and human Müller glia in retinal organoids[1].

TRULI fosters both the G1-S and G2-M checkpoint transitions and yields supporting cells capable of transdifferentiation[1].

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

Cell Proliferation Assay[1]

Cell Line:	MCF 10A cells
Concentration:	10 μM
Incubation Time:	24 hours
Result:	Decreased the phosphorylation of Yap at residue S127.

CUSTOMER VALIDATION

- EMBO J. 2023 Jan 2;e112184.
- Oncogene. 2023 Aug 17.
- PLoS Pathog. 2023 Mar 27;19(3):e1011272.
- Cells. 2023 May 29, 12(11), 1503.
- Mol Carcinog. 2023 Apr 12.

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REFERENCES

[1]. Nathaniel Kastan, et al. Small-molecule inhibition of Lats kinases promotes Yap-dependent proliferation in postmitotic mammalian tissues. bioRxiv 2020.02.11.944157.

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