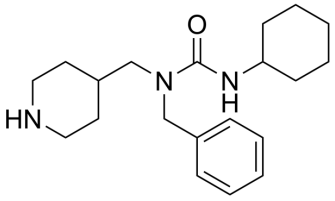
SRI-011381

Cat. No.:	HY-100347
CAS No.:	1629138-41-5
Molecular Formula:	$C_{20}H_{31}N_3O$
Molecular Weight:	329.48
Target:	TGF-beta/Smad
Pathway:	Stem Cell/Wnt; TGF-beta/Smad
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (151.75 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.0351 mL	15.1754 mL	30.3509 mL
5 mM	0.6070 mL	3.0351 mL	6.0702 mL
10 mM	0.3035 mL	1.5175 mL	3.0351 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 (7.59 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.59 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.59 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SRI-011381 is an orally active TGF-β signaling agonist, exhibits neuroprotective effects[1][2].

In Vitro

SRI-011381 (10 μM) promotes the proliferation of mouse lung fibroblasts, and significantly increases TGF-β1, NALP3, collagen-1, and α-SMA expression[1].

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

In Vivo

SRI-011381 (30 mg/kg; i.p.; every 2 d; for 22 days) partially rescues the deficits in optic nerve and retina of YAPGFAP-CKO EAE mice[2].

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

Animal Model:	YAPGFAP-CKO mice bearing experimental autoimmune encephalomyelitis (EAE)[2]
Dosage:	30 mg/kg
Administration:	Intraperitoneally injection; every 2 d; for 22 days
Result:	Significantly inhibited inflammatory infiltration and relieved the loss of neurons in YAPGFAP-CKO EAE mice.

CUSTOMER VALIDATION

- Nature. 2023 Jan;613(7942):120-129.
- Theranostics. 2021; 11(17):8480-8499.
- Cell Commun Signal. 2023 Jul 4;21(1):168.
- Cell Mol Biol Lett. 2023 Feb 27;28(1):15.
- Phytomedicine. 1 June 2022, 154234.

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REFERENCES

[1]. Jingyin Han, et al. The Improvement Effect of Sodium Ferulate on the Formation of Pulmonary Fibrosis in Silicosis Mice Through the Neutrophil Alkaline Phosphatase 3 (NALP3)/Transforming Growth Factor-β1 (TGF-β1)/α-Smooth Muscle Actin (α-SMA) Pathway. Med Sci Monit. 2021 Jun 15;27:e927978.

[2]. Qian Wu, et al. Astrocytic YAP protects the optic nerve and retina in an experimental autoimmune encephalomyelitis model through TGF-β signaling. Theranostics. 2021 Jul 25;11(17):8480-8499.

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