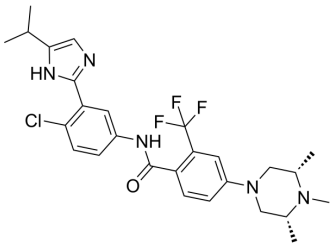
Hedgehog IN-5

Cat. No.:	HY-153730
CAS No.:	1544681-93-7
Molecular Formula:	$C_{27}H_{31}ClF_3N_5O$
Molecular Weight:	534.02
Target:	Hedgehog
Pathway:	Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Hedgehog IN-5 is an orally active small molecule inhibitor of the hedgehog pathway. Hedgehog IN-5 can be used for the research of fibrotic disease[1].

In Vivo

Modeling methods: Bleomycin (HY-108345) (3 mg/kg; Intratracheal injection for 8 days)-induced pulmonary fibrosis model in rats.Hedgehog IN-5 (5-30 mg/kg; Oral administration after 8 days of moulding; once daily for 2 weeks) inhibits the progression of pulmonary fibrosis induced by Bleomycin (HY-108345) in several pathological evaluation indexes in SD rat model of unilateral pulmonary fibrosis, significantly[1].

Modeling methods: CCL4 (dissolved in olive oil at a dose of 0.5 μL/g; Oral administration; Three times a week for four weeks)-induced liver fibrosis model in C57BL/6 mice.Hedgehog IN-5 (5-20 mg/kg; Oral administration on the day of moulding; Once a day for 4 weeks) exhibits a certain trend of inhibiting CCl4-induced liver fibrosis. And primarily manifests as a reduction in hepatocyte degeneration and necrosis, as well as a decrease in fibrotic area in CCL4-induced liver fibrosis model in C57BL/6 mice[1].

Hedgehog IN-5 (10-20 mg/kg, 20mg/kg (Combined with BIBF1120 (50 mg/kg); Oral administration; Once a day for 20 days) alone or in combination with BIBF1120 significantly inhibits bleomycin-induced lung tissue inflammation and fibrosis[1].

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

Animal Model:	Unilateral pulmonary fibrosis in SD rat model[1]
Dosage:	5 mg/kg, 15 mg/kg, 30 mg/kg
Administration:	Oral administration after 8 days of moulding; once daily for 2 weeks
Result:	Reduced the scores of Bleomycin (HY-108345)-treated mice, significantly. Collagen content in the lungs as well as myofibroblasts were quantified to assess the antifibrotic effect of Hedgehog IN-5, α-SMA protein percentage was significantly reduced with 30 mg/kg dose and collagen content was not significantly changed.

Animal Model:	CCL4-induced liver fibrosis model in C57BL/6 mice[1]
Dosage:	5 mg/kg, 10 mg/kg, 20 mg/kg
Administration:	Oral administration on the day of moulding; Once a day for four weeks

Result:	Showed slow weight gain after one week and no significant weight gain after two weeks at the dose of 20 mg/kg. Serum biochemical detection in peripheral blood showed that ALT and AST were significantly reduced but TBIL had no change at the dose of 20mg/kg. Liver histopathological analysis showed that the liver injury score decreased and the fibrosis area of liver tissue decreased.

REFERENCES

[1]. Cai, Sui Xiong et al. Application of hedgehog pathway inhibitor for treatment of fibrotic diseases. World Intellectual Property Organization, WO2018082587 A1 2018-05-11

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