Fargesone A

Cat. No.: HY-N3891

CAS No.: 116424-69-2

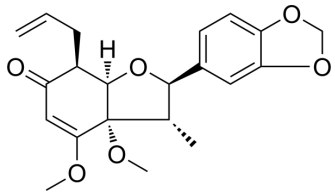
Molecular Formula: $C_{21}H_{24}O_6$

Molecular Weight: 372.41

Target: FXR

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Fargesone A is a potent and selective FXR agonist. Fargesone A shows anti-inflammatory activity[1].

IC_{50} & Target

FXR[1]

In Vitro

Fargesone A (10 μM; 24 h) alleviates hepatocyte disorders in an FXR-dependent manner in human liver WRL68 cells[1].
Agonistic activity of Fargesone A is through direct interaction with FXR[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Fargesone A (3 and 30 mg/kg; i.p.; daily for 7 days) significantly ameliorates pathological features in bile duct ligation (BDL)-induced chronic liver fibrosis mouse model[1].
Pharmacokinetics parameters of Fargesone A in mice

	$t_{1/2}$ (h)	T_{max} (h)	C_{max} (ng/mL)	AUC_{0-t} (ng/mL*h)	AUC_{0-inf} (ng/mL*h)	MRT_{0-inf} (h)	F (%)
i.v. (5 mpk)	0.68±0.1	-	941±57	469±13	471±14	0.43±0.13	-
p.o. (10 mpk)	0.33±0.04	0.25±0.00	104±16	101±32	102±32	0.58±0.07	10.8±3.2

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

Animal Model:	C57BL/6 mice, bile duct ligation (BDL)-induced chronic liver fibrosis mouse model[1]
Dosage:	3 and 30 mg/kg
Administration:	IP, once daily for 7 days
Result:	Resulted in a lower level of inflammatory infiltrates and a smaller amount of collagen deposition compared to the vehicle group. Reversed BDL-induced sharp increase in total bilirubin level in the serum. Significantly decreased liver mRNA expression of the inflammatory biomarkers interleukin (IL)-6, IL-1β, inducible nitric oxide synthase (iNOS), and prostaglandin-endoperoxide synthase 2 (COX2).

Animal Model:	C57BL6/J mice[1]
Dosage:	5 or 10 mg/kg
Administration:	IV or PO (Pharmacokinetics Analysis)
Result:	Showed acceptable PK profiles in general.

REFERENCES

[1]. Guo F, et al. Biomimetic Total Synthesis and the Biological Evaluation of Natural Product (-)-Fargesone A as a Novel FXR Agonist. JACS Au. 2022 Dec 7;2(12):2830-2838.

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