Odevixibat

Cat. No.: HY-109120

CAS No.: 501692-44-0

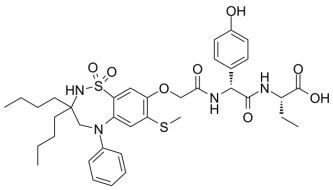
Molecular Formula: $C_{37}H_{48}N_4O_8S_2$

Molecular Weight: 741

Target: Apical Sodium-Dependent Bile Acid Transporter

Pathway: Membrane Transporter/Ion Channel

Storage: -20°C, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 166.67 mg/mL (224.93 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3495 mL	6.7476 mL	13.4953 mL
	5 mM	0.2699 mL	1.3495 mL	2.6991 mL
	10 mM	0.1350 mL	0.6748 mL	1.3495 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: ≥ 4.17 mg/mL (5.63 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 4.17 mg/mL (5.63 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Odevixibat (A4250) is a selective and orally active ileal apical sodium-dependent bile acid transporter (ASBT) inhibitor. Odevixibat decreases cholestatic liver and bile duct injury in mice model. Odevixibat has the potential for the treatment of primary biliary cirrhosis[1].

IC_{50} & Target

ASBT[1].

In Vivo

Odevixibat (A4250)(0.01% (w/w) in chow diet; 4 weeks) improves sclerosing cholangitis and significantly reduces serum alanine aminotransferase, alkaline phosphatase and BAs levels, hepatic expression of pro-inflammatory and pro-fibrogenic genes and bile duct proliferation in $Mdr2^{-/-}$ mice[1].
In addition, Odevixibat (A4250) significantly reduces bile flow and biliary BA output, which correlates with reduced bsep transcription, while Ntcp and Cyp7a1 are induced[1].

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

Animal Model:	Eight week old Mdr2$^{-/-}$ (Abcb4$^{-/-}$) mice (model of cholestatic liver injury and sclerosing cholangitis)[1]
Dosage:	0.01% (w/w) in chow diet
Administration:	4 weeks
Result:	Decreased cholestatic liver and bile duct injury in mice model.

CUSTOMER VALIDATION

- ALTEX. 2023 Jul 27.
- bioRxiv. 2024 Feb 18.

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REFERENCES

[1]. Baghdasaryan A, et al. Inhibition of intestinal bile acid absorption improves cholestatic liver and bile duct injury in a mouse model of sclerosing cholangitis.J Hepatol. 2016 Mar;64(3):674-81.

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