# Nidufexor

**Cat. No.:** HY-109096

**CAS No.:** 1773489-72-7

**Molecular Formula:** $C_{27}H_{22}ClN_3O_4$

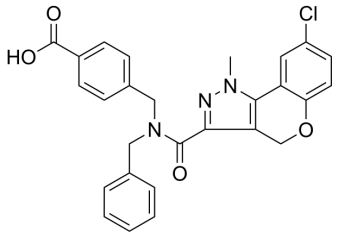
**Molecular Weight:** 487.93

**Target:** FXR; Autophagy

**Pathway:** Metabolic Enzyme/Protease; Autophagy

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 6 months |
| | -20°C | 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 83.33 mg/mL (170.78 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.0495 mL | 10.2474 mL | 20.4947 mL |
| 5 mM | 0.4099 mL | 2.0495 mL | 4.0989 mL |
| 10 mM | 0.2049 mL | 1.0247 mL | 2.0495 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: ≥ 2.08 mg/mL (4.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.26 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Nidufexor (LMB763) is an orally-available farnesoid X receptor (FXR) agonist for the research of nonalcoholic steatohepatitis (NASH)[1].

**$IC_{50}$ & Target**

FXR[1]

**In Vivo**

Nidufexor (LMB763) is a potent and specific FXR-gene modulator in vivo, reducing steatosis, inflammation and fibrosis in nonalcoholic steatohepatitis (NASH) murine models[1].

?Nidufexor exhibits moderate $C_{max}$ (4.5, 12.4, 28.1, 80.9, and 140.8 μM) and terminal elimination half-lives ($t_{1/2}$; 3.9 5.7 6.3 5.6 6.3 h) following oral administration (3 ,10 ,30, 100, and 300mg/kg) in adult male Wistar Han rats (age approximately 10 weeks)[1]

?Nidufexor exhibits terminal elimination half-lives (mouse 4.5, rat 4.4 and, dog 6.8 h) following intravenous administration (mouse 3.0, rat 5.0 and, dog 0.5 mg/kg)[1].

?Nidufexor exhibits terminal elimination half-lives (mouse 3.5, rat 2.7 and, dog 10.1 h) following oral administration (mouse 10, rat 10 and, dog 2 mg/kg)[1].

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

| | |
|---|---|
| Animal Model: | Han-Wistar rats[1] |
| Dosage: | 0.1, 0.3, 1.5, 7.5, 25, 100 mg/kg (Pharmacokinetic Analysis) |
| Administration: | Oral gavage, once daily for 14 days |
| Result: | On day 1 and 13, serum exposure increased approximately dose-proportionally from 0.1 to 100 mg/kg. Exposure at 0.1 and 0.3 mg/kg was likely underestimated on day 13. No significant accumulation was observed[1]. |

## REFERENCES

[1]. Chianelli D, et al. Nidufexor (LMB763), a Novel FXR Modulator for the Treatment of Nonalcoholic Steatohepatitis. J Med Chem. 2020 Apr 23;63(8):3868-3880.



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