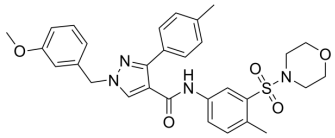
DY268

Cat. No.:	HY-110267
CAS No.:	1609564-75-1
Molecular Formula:	$C_{30}H_{32}N_4O_5S$
Molecular Weight:	560.66
Target:	FXR
Pathway:	Metabolic Enzyme/Protease
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 : 50 mg/mL (89.18 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7836 mL	8.9181 mL	17.8361 mL
	5 mM	0.3567 mL	1.7836 mL	3.5672 mL
	10 mM	0.1784 mL	0.8918 mL	1.7836 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: ≥ 5 mg/mL (8.92 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (8.92 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (8.92 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DY268 is a farnesoid X receptor (FXR) antagonist (IC_{50}=7.5 nM). It inhibits FXR transactivation in a cell-based assay with an IC_{50} value of 468 nM. DY268 can be used in the study of drug-induced liver injury (DILI)[1][2].

In Vitro

DY268 (10 μM) treatment from 13 dpf to 15 dpf increased Bhmt expression in 15-dpf Tg(fabp10a:pt-β-catenin) livers compared with DMSO treatment[2].
DY268 exhibits a>25% drop in ATP relative to vehicle-treated control at the highest concentration tested[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kyounghwa Jung, et al. Farnesoid X Receptor Activation Impairs Liver Progenitor Cell-Mediated Liver Regeneration via the PTEN-PI3K-AKT-mTOR Axis in Zebrafish. Hepatology. 2021 Jul;74(1):397-410.

[2]. Leah M Norona, et al. In vitro assessment of farnesoid X receptor antagonism to predict drug-induced liver injury risk. Arch Toxicol. 2020 Sep;94(9):3185-3200.

[3]. Yu DD, Lin W, Forman BM, Chen T. Identification of trisubstituted-pyrazol carboxamide analogs as novel and potent antagonists of farnesoid X receptor. Bioorg Med Chem. 2014 Jun 1;22(11):2919-38.

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