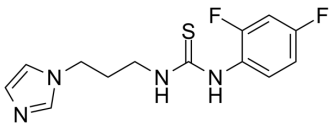
IR415

Cat. No.:	HY-116999
CAS No.:	452967-14-5
Molecular Formula:	$C_{13}H_{14}F_2N_4S$
Molecular Weight:	296.34
Target:	HBV
Pathway:	Anti-infection

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 : 125 mg/mL (421.81 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.3745 mL	16.8725 mL	33.7450 mL
5 mM	0.6749 mL	3.3745 mL	6.7490 mL
10 mM	0.3375 mL	1.6873 mL	3.3745 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 (7.02 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.02 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.02 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

IR415 is a potent anti-HBV agent and inhibits HBV replication by blocking the HBx activity. IR415 selectively interacts with HBx (K_d=2 nM) and blocks HBV-mediated RNAi suppression, reverses the inhibitory effect of HBx protein on the activity of the dicer endoribonuclease[1]. HBx: hepatitis B virus X protein.

IC_{50} & Target

Kd: 2 nM (IR415-HBx interaction)[1]

In Vitro

Hepatitis B virus X protein (HBx) as a suppressor of host defenses consisting of RNAi-based silencing of viral genes[1].

IR415 (50-200 μM) has a dose-dependent inhibitory effect on HBx, with a minimal effective concentration of 50 μM in HepG2/GFP-shRNA line transfected with HBx[1].

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

REFERENCES

[1]. Ghosh S, et al. An RNAi-based high-throughput screening assay to identify small molecule inhibitors of hepatitis B virus replication.J Biol Chem. 2017 Jul 28;292(30):12577-12588.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA