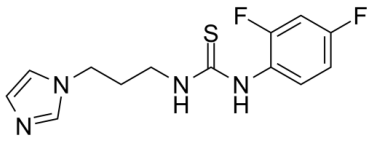
Data Sheet

Product Name:	IR415
Cat. No.:	CS-0066972
CAS No.:	452967-14-5
Molecular Formula:	$C_{13}H_{14}F_2N_4S$
Molecular Weight:	296.34
Target:	HBV
Pathway:	Anti-infection
Solubility:	DMSO : 125 mg/mL (421.81 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

IR415 is a potent **anti-HBV agent** and inhibits **HBV replication** by blocking the HBx activity. IR415 selectively interacts with **HBx** ($\mathbf{K_d}$ =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. IC50 & 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].

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.

CAIndexNames:

Thiourea, N-(2,4-difluorophenyl)-N′-[3-(1H-imidazol-1-yl)propyl]-

SMILES:

S=C(NCCCN1C=CN=C1)NC2=CC=C(F)C=C2F

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