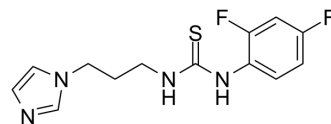


IR415

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-116999 | | |
| CAS No.: | 452967-14-5 | | |
| Molecular Formula: | C ₁₃ H ₁₄ F ₂ N ₄ S | | |
| 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) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 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 | <ol style="list-style-type: none"> 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 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 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. |
| 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 μ M) has a dose-dependent inhibitory effect on HBx, with a minimal effective concentration of 50 μ M 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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