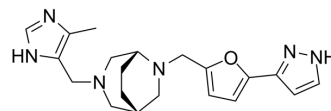


DRP1i27

| | |
|---------------------------|--|
| Cat. No.: | HY-152086 |
| CAS No.: | 1453028-33-5 |
| Molecular Formula: | C ₂₀ H ₂₆ N ₆ O |
| Molecular Weight: | 366.46 |
| Target: | Dynamin |
| Pathway: | Cytoskeleton |
| Storage: | 4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light) |



SOLVENT & SOLUBILITY

| | | | | | |
|---|---|--------------------------|-----------|------------|------------|
| In Vitro | DMSO : 100 mg/mL (272.88 mM; Need ultrasonic) | | | | |
| | | Solvent Concentration | Mass | | |
| | Preparing Stock Solutions | | 1 mg | 5 mg | 10 mg |
| | | 1 mM | 2.7288 mL | 13.6441 mL | 27.2881 mL |
| | | 5 mM | 0.5458 mL | 2.7288 mL | 5.4576 mL |
| | 10 mM | 0.2729 mL | 1.3644 mL | 2.7288 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: ≥ 2.5 mg/mL (6.82 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.82 mM); Clear solution | | | | |

BIOLOGICAL ACTIVITY

| | |
|--------------------|---|
| Description | DRP1i27 is a potent inhibitor of human Drp1 (dynamin-related protein 1). DRP1i27 binds to the GTPase site of Drp1, with hydrogen bonds to Gln34 and Asp218. DRP1i27 targets Drp1-mediated mitochondrial fission in cell line models and protects against simulated ischemia-reperfusion injury ^[1] . |
| In Vitro | <p>DRP1i27 (0-50 μM) directly binds to and inhibits GTPase activity of human Drp1^[1].</p> <p>DRP1i27 (0-50 μM) is able to increase cellular networks of mitochondria in human and mouse fibroblasts in a Drp1-dependent manner^[1].</p> <p>DRP1i27 has a binding affinity of 286 μM in the SPR assay and a K_D value of 190 μM via the MST assay^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> |

REFERENCES

[1]. Rosdah AA, et al. A novel small molecule inhibitor of human Drp1. Sci Rep. 2022 Dec 13;12(1):21531.

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

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