

产品名称: N-Cyclopropyl-5-(thiophen-2-yl)isoxazole-3-carboxamide

产品别名: Isoxazole 9; ISX-9

生物活性:

| Description | ISX-9 is a small molecule inducer of adult neural stem cell differentiation. Target: At 2.5-20 μ M, ISX-9 has been shown to dose-dependently trigger neurogenesis and block gliogenesis in adult rat hippocampal stem cells through a calcium-activated signaling pathway dependent on myocyte-enhancer factor 2-dependent gene expression. ISX-9 administered at 20 mg/kg for 12 days to mice has been reported to improve hippocampal function as evidenced by enhanced spatial memory ability in the Morris water maze test. | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------|------------|------------|--|--|----------------|------|------|-------|---------------|-----------|------|-----------|------------|------------|-----------------|------|-----------|-----------|-----------|--|-------|-----------|-----------|-----------|
| In Vitro: | <p>DMSO : \geq 37 mg/mL (157.94 mM)</p> <p>H₂O : < 0.1 mg/mL (insoluble)</p> <p>* "\geq" means soluble, but saturation unknown.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solvent&Solubility | <table border="1"><thead><tr><th rowspan="2"></th><th>Solvent \ Mass</th><th rowspan="2">1 mg</th><th rowspan="2">5 mg</th><th rowspan="2">10 mg</th></tr><tr><th>Concentration</th></tr></thead><tbody><tr><th>Preparing</th><td>1 mM</td><td>4.2686 mL</td><td>21.3429 mL</td><td>42.6858 mL</td></tr><tr><th>Stock Solutions</th><td>5 mM</td><td>0.8537 mL</td><td>4.2686 mL</td><td>8.5372 mL</td></tr><tr><th></th><td>10 mM</td><td>0.4269 mL</td><td>2.1343 mL</td><td>4.2686 mL</td></tr></tbody></table> | | | | | | Solvent \ Mass | 1 mg | 5 mg | 10 mg | Concentration | Preparing | 1 mM | 4.2686 mL | 21.3429 mL | 42.6858 mL | Stock Solutions | 5 mM | 0.8537 mL | 4.2686 mL | 8.5372 mL | | 10 mM | 0.4269 mL | 2.1343 mL | 4.2686 mL |
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| <p>*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。</p> <p>储备液的保存方式和期限 -80°C, 6 months; -20°C, 1 month。 -80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。</p> <p>In Vivo:</p> <p>请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂：</p> <p>——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用；以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶</p> <p>1. 请依序添加每种溶剂： 10% DMSO → 40% PEG300 → 5% Tween-80 → 45% saline Solubility: \geq 2.5 mg/mL (10.67 mM); Clear solution 此方案可获得 \geq 2.5 mg/mL (10.67 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀。向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。</p> <p>2. 请依序添加每种溶剂： 10% DMSO → 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (10.67 mM); Suspended solution; Need ultrasonic 此方案可获得 2.5 mg/mL (10.67 mM) 的均匀悬浊液，悬浊液可用于口服和腹腔注射。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水溶液中，混合均匀。</p> <p>3. 请依序添加每种溶剂： 10% DMSO → 90% corn oil Solubility: \geq 2.5 mg/mL (10.67 mM); Clear solution 此方案可获得 \geq 2.5 mg/mL (10.67 mM, 饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。</p> | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | 以 1 mL 工作液为例，取 100 μ L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μ L 玉米油中，混合均匀。 |
| References | [1]. Petrik D, et al. Functional and mechanistic exploration of an adult neurogenesis-promoting small molecule. FASEB J. 2012 Aug;26(8):3148-3162. |



源叶生物