



上海源叶生物科技有限公司  
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产品名称: MAC13243

产品别名: MAC13243

**生物活性:**

| <b>Description</b>               | <p>MAC13243, an antibacterial agent, is a likely inhibitor of the bacterial lipoprotein targeting chaperone, LolA. IC50 Value: Target: Antibacterial MAC13243, a molecule that belongs to a new chemical class and that has a unique mechanism and promising activity against multidrug-resistant <i>Pseudomonas aeruginosa</i>. MAC13243 inhibits the function of the LolA protein and represents a new chemical probe of lipoprotein targeting in bacteria with promise as an antibacterial lead with Gram-negative selectivity.</p>   |           |            |            |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
|----------------------------------|--|-----------|------------|------------|--|----------------|------|------|-------|---------------|----------------------------------|------|-----------|------------|------------|------|-----------|-----------|-----------|-------|-----------|-----------|
| <b>Solvent&amp;Solubility</b>    | <p><b>In Vitro:</b><br/><b>DMSO : 50 mg/mL (113.02 mM; Need ultrasonic)</b></p>  |           |            |            |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
|                                  | <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><td rowspan="5"><b>Preparing Stock Solutions</b></td><td>1 mM</td><td>2.2604 mL</td><td>11.3020 mL</td><td>22.6040 mL</td></tr><tr><td>5 mM</td><td>0.4521 mL</td><td>2.2604 mL</td><td>4.5208 mL</td></tr><tr><td>10 mM</td><td>0.2260 mL</td><td>1.1302 mL</td><td>2.2604 mL</td></tr></tbody></table>   |           |            |            |  | Solvent \ Mass | 1 mg | 5 mg | 10 mg | Concentration | <b>Preparing Stock Solutions</b> | 1 mM | 2.2604 mL | 11.3020 mL | 22.6040 mL | 5 mM | 0.4521 mL | 2.2604 mL | 4.5208 mL | 10 mM | 0.2260 mL | 1.1302 mL |
|                                  | Solvent \ Mass   | 1 mg      | 5 mg       | 10 mg      |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
|                                  | Concentration  |           |            |            |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
| <b>Preparing Stock Solutions</b> | 1 mM   | 2.2604 mL | 11.3020 mL | 22.6040 mL |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
|                                  | 5 mM   | 0.4521 mL | 2.2604 mL  | 4.5208 mL  |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
|                                  | 10 mM  | 0.2260 mL | 1.1302 mL  | 2.2604 mL  |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |
|                                  | <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。<br/>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><b>In Vivo:</b><br/>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:<br/>——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<br/>1.请依序添加每种溶剂: 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline<br/>Solubility: ≥ 2.5 mg/mL (5.65 mM); Clear solution<br/>此方案可获得 ≥ 2.5 mg/mL (5.65 mM, 饱和度未知) 的澄清溶液。<br/>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。<br/><br/>2.请依序添加每种溶剂: 10% DMSO→ 90% (20% SBE-β-CD in saline)<br/>Solubility: ≥ 2.5 mg/mL (5.65 mM); Clear solution<br/>此方案可获得 ≥ 2.5 mg/mL (5.65 mM, 饱和度未知) 的澄清溶液。<br/>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 生理盐水水溶液中, 混合均匀。<br/><br/>3.请依序添加每种溶剂: 10% DMSO →90% corn oil<br/>Solubility: ≥ 2.5 mg/mL (5.65 mM); Clear solution<br/>此方案可获得 ≥ 2.5 mg/mL (5.65 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</p> |           |            |            |  |                |      |      |       |               |                                  |      |           |            |            |      |           |           |           |       |           |           |



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|-------------------|--|
|                   | <p>实验。</p> <p>以 1 mL 工作液为例, 取 100 <math>\mu</math>L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 <math>\mu</math>L 玉米油中, 混合均匀。</p>  |
| <b>References</b> | <p>[1]. Barker CA, et al. Degradation of MAC13243 and studies of the interaction of resulting thiourea compounds with the lipoprotein targeting chaperone LolA. <i>Bioorg Med Chem Lett.</i> 2013 Apr 15;23(8):2426-31.</p> <p>[2]. Pathania R, et al. Chemical genomics in <i>Escherichia coli</i> identifies an inhibitor of bacterial lipoprotein targeting. <i>Nat Chem Biol.</i> 2009 Nov;5(11):849-56.</p> |



# 源叶生物