

# Sodium orthovanadate

货号: **AYB26678**

## 产品信息

|      |   |
|------|---|
| 生物活性 | Sodium orthovanadate is an inhibitor of <b>protein tyrosine phosphatases</b> , alkaline phosphatases and a number of ATPases, most likely acting as a phosphate analogue.   |
| CAS  | 13721-39-6  |
| 中文名称 | 钒酸钠   |
| 分子量  | 183.91  |
| 体外研究 | <p>In the presence of oxidizing agents vanadium ions exist as the hydrated monomer of Sodium orthovanadate (vanadate: <math>\text{HVO}_4^{2-}</math> or <math>\text{H}_2\text{VO}_4^-</math>) at micromolar concentrations near neutral pH. Sodium orthovanadate (vanadate) also begins to polymerize at concentrations greater than 0.1 mM at neutral pH. The yellow-orange solutions of decavanadate can be converted to the colorless solutions of monomeric Sodium orthovanadate (vanadate) by dilution after a period of many hours. The process is hastened by boiling at pH 10, which encourages the kinetically sluggish depolymerization process. Sodium orthovanadate could alter the phosphorylation status of ASK1 at serine 83 and threonine 845 induced by ischemia. Sodium orthovanadate could increase the tyrosine phosphorylation of PTEN and further inhibit the activation of ASK1 via activating Akt during cerebral ischemia.</p> <p><b>The accuracy of these methods have not been independently confirmed. They are for reference only.</b></p> |
| 体内研究 |   |
| 形式   | Solid   |
| 运输条件 | Room temperature in continental US; may vary elsewhere.   |
| 保存条件 | 4°C, sealed storage, away from moisture   |

| <p>溶解性</p> | <p>In Vitro:<br/> <b>H<sub>2</sub>O : 8.33 mg/mL (45.29 mM; Need ultrasonic)</b><br/> <b>DMSO : (insoluble or slightly soluble)</b></p> <p>配制储备液</p> <table border="1"> <thead> <tr> <th>浓度</th> <th>溶剂</th> <th>体积</th> <th>质量</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>5.4374 mL</td> <td>27.1872 mL</td> <td>54.3744 mL</td> </tr> <tr> <td>5 mM</td> <td>1.0875 mL</td> <td>5.4374 mL</td> <td>10.8749 mL</td> </tr> <tr> <td>10 mM</td> <td>0.5437 mL</td> <td>2.7187 mL</td> <td>5.4374 mL</td> </tr> </tbody> </table> <p>*<br/> 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 (sealed storage, away from moisture)。-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:<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 <b>In Vitro</b> 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</p> <ul style="list-style-type: none"> <li>1. 请依序添加每种溶剂： PBS</li> </ul> <p>Solubility: 16.67 mg/mL (90.64 mM); Clear solution; Need ultrasonic and warming and heat to 60°C<br/> *以上所有助溶剂都可在 MCE 网站选购。</p> | 浓度         | 溶剂         | 体积 | 质量 | 1 mM | 5.4374 mL | 27.1872 mL | 54.3744 mL | 5 mM | 1.0875 mL | 5.4374 mL | 10.8749 mL | 10 mM | 0.5437 mL | 2.7187 mL | 5.4374 mL |
|------------|--|------------|------------|----|----|------|-----------|------------|------------|------|-----------|-----------|------------|-------|-----------|-----------|-----------|
| 浓度         | 溶剂   | 体积         | 质量         |    |    |      |           |            |            |      |           |           |            |       |           |           |           |
| 1 mM       | 5.4374 mL  | 27.1872 mL | 54.3744 mL |    |    |      |           |            |            |      |           |           |            |       |           |           |           |
| 5 mM       | 1.0875 mL  | 5.4374 mL  | 10.8749 mL |    |    |      |           |            |            |      |           |           |            |       |           |           |           |
| 10 mM      | 0.5437 mL  | 2.7187 mL  | 5.4374 mL  |    |    |      |           |            |            |      |           |           |            |       |           |           |           |
| <p>纯度</p>  | <p>≥99.0%</p>  |            |            |    |    |      |           |            |            |      |           |           |            |       |           |           |           |