

产品名称：**N,N,N,N',N',N'-六甲基-二溴化-1,10-癸铵**
 产品别名：十烃溴铵； **Decamethonium Bromide**

生物活性：																									
Description	Decamethonium Bromide is a nicotinic AChR partial agonist and neuromuscular blocking agent. Target: nAChR Decamethonium (Syncurine) is a depolarizing muscle relaxant or neuromuscular blocking agent, and is used in anesthesia to induce paralysis. Decamethonium, which has a short action time, is similar to acetylcholine and acts as a partial agonist of the nicotinic acetylcholine receptor. In the motor endplate, it causes depolarization, preventing further effects to the normal release of acetylcholine from the presynaptic terminal, and therefore preventing the neural stimulus from affecting the muscle. In the process of binding, decamethonium actually activates (depolarizes) the motor endplate, but since the decamethonium itself is not degraded, the membrane remains depolarized and unresponsive to normal acetylcholine release [1].																								
	<p>In Vitro:</p> <p>H₂O : ≥ 50 mg/mL (119.53 mM)</p> <p>DMSO : 50 mg/mL (119.53 mM; Need ultrasonic)</p> <p>* "≥" means soluble, but saturation unknown.</p> <table> <tr> <th rowspan="2"></th><th rowspan="2">Solvent Concentration</th><th colspan="3">Mass</th></tr> <tr> <th>1 mg</th><th>5 mg</th><th>10 mg</th></tr> <tr> <td>Preparing</td><td>1 mM</td><td>2.3907 mL</td><td>11.9534 mL</td><td>23.9069 mL</td></tr> <tr> <td rowspan="2">Stock Solutions</td><td>5 mM</td><td>0.4781 mL</td><td>2.3907 mL</td><td>4.7814 mL</td></tr> <tr> <td>10 mM</td><td>0.2391 mL</td><td>1.1953 mL</td><td>2.3907 mL</td></tr> </table> <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℃，6 months；-20℃，1 month。 -80℃ 储存时，请在 6 个月内使用，-20℃ 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> <div> <p>1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline</p> <p>Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (5.98 mM，饱和度未知) 的澄清溶液。</p> <p>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> </div> <div> <p>2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline)</p> <p>Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (5.98 mM，饱和度未知) 的澄清溶液。</p> <p>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> </div>					Solvent Concentration	Mass			1 mg	5 mg	10 mg	Preparing	1 mM	2.3907 mL	11.9534 mL	23.9069 mL	Stock Solutions	5 mM	0.4781 mL	2.3907 mL	4.7814 mL	10 mM	0.2391 mL	1.1953 mL
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Solvent&Solubility																									

	<p>3.请依序添加每种溶剂： 10% DMSO →90% corn oil</p> <p>Solubility: ≥ 25 mg/mL (59.77 mM); Clear solution</p> <p>此方案可获得 ≥ 25 mg/mL (59.77 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> <p>以 1 mL 工作液为例, 取 100 μL 250.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中, 混合均匀。</p>
References	<p>[1]. Marcheselli, M., C. Rustichelli, and M. Mauri, Novel antifouling agent zinc pyrithione: determination, acute toxicity, and bioaccumulation in marine mussels (<i>Mytilus galloprovincialis</i>). Environ Toxicol Chem., 2010. 29(11): p. 2583-92.</p>



源叶生物