



上海源叶生物科技有限公司  
Shanghai yuanye Bio-Technology Co., Ltd  
电话: 021-61312973 传真: 021-55068248  
网址: [www.shyuanye.com](http://www.shyuanye.com)  
邮箱: shyysw@sina.com

## 产品名称: rac-Vigabatrin Hydrochloride

产品别名: 盐酸氨己烯酸; Vigabatrin Hydrochloride;  $\gamma$ -Vinyl-GABA hydrochloride

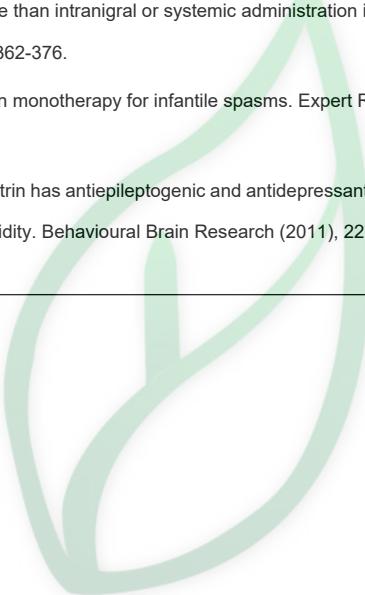
### 生物活性:

<b>Description</b>	Vigabatrin (Hydrochloride) ( $\gamma$ -Vinyl-GABA; Sabril) is a structural analog of the inhibitory neurotransmitter $\gamma$ -aminobutyric acid (GABA) that irreversibly inhibits the catabolism of GABA by GABA transaminase. IC50 value: Target: GABA transaminase Clinical studies have shown that vigabatrin is superior to placebo in decreasing the frequency of infantile spasms. In tuberous sclerosis, vigabatrin may be considered the first-line treatment for IS. The mode of action is increasing concentrations of the inhibitory neurotransmitter GABA in the brain. A significant increase in seizure threshold was observed following systemic (i.p.) administration of high (600 or 1200 mg/kg) doses of vigabatrin. Bilateral microinjection of vigabatrin (10 $\mu$ g) into either the anterior or posterior SNr also increased seizure threshold, but less markedly than systemic treatment.																						
	<p><b>In Vitro:</b></p> <p>H<sub>2</sub>O : 33.33 mg/mL (201.24 mM; Need ultrasonic)</p> <p>DMSO : 27.5 mg/mL (166.04 mM; Need ultrasonic and warming)</p> <table border="1"><thead><tr><th rowspan="2"></th><th>Solvent \ Mass</th><th>1 mg</th><th>5 mg</th><th>10 mg</th></tr><tr><th>Concentration</th><th></th><th></th><th></th></tr></thead><tbody><tr><td rowspan="3">Preparing Stock Solutions</td><td>1 mM</td><td>6.0379 mL</td><td>30.1896 mL</td><td>60.3792 mL</td></tr><tr><td>5 mM</td><td>1.2076 mL</td><td>6.0379 mL</td><td>12.0758 mL</td></tr><tr><td>10 mM</td><td>0.6038 mL</td><td>3.0190 mL</td><td>6.0379 mL</td></tr></tbody></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°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>		Solvent \ Mass	1 mg	5 mg	10 mg	Concentration				Preparing Stock Solutions	1 mM	6.0379 mL	30.1896 mL	60.3792 mL	5 mM	1.2076 mL	6.0379 mL	12.0758 mL	10 mM	0.6038 mL	3.0190 mL	6.0379 mL
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<b>Solvent&amp;Solubility</b>	<p><b>In Vivo:</b></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</p> <p>Solubility: ≥ 2.5 mg/mL (15.09 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (15.09 mM, 饱和度未知) 的澄清溶液。</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 400 <math>\mu</math>L PEG300 中, 混合均匀; 向上述体系中加入 50 <math>\mu</math>L Tween-80, 混合均匀; 然后继续加入 450 <math>\mu</math>L 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-<math>\beta</math>-CD in saline)</p> <p>Solubility: ≥ 2.5 mg/mL (15.09 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (15.09 mM, 饱和度未知) 的澄清溶液。</p>																						



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	<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 20% 的 SBE-<math>\beta</math>-CD 生理盐水水溶液中, 混合均匀。</p> <p>3.请依序添加每种溶剂: 10% DMSO → 90% corn oil</p> <p>Solubility: ≥ 2.5 mg/mL (15.09 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (15.09 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 <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]. Broeuer, et al. Vigabatrin for focal drug delivery in epilepsy: Bilateral microinfusion into the subthalamic nucleus is more effective than intranigral or systemic administration in a rat seizure model. <i>Neurobiology of Disease</i> (2012), 46(2), 362-376.</p> <p>[2]. Gaily, Eija Vigabatrin monotherapy for infantile spasms. <i>Expert Review of Neurotherapeutics</i> (2012), 12(3), 275-286.</p> <p>[3]. Russo, et al. Vigabatrin has antiepileptogenic and antidepressant effects in an animal model of epilepsy and depression comorbidity. <i>Behavioural Brain Research</i> (2011), 225(1), 373-376.</p> <p>[4]. Vigabatrin</p>



# 源叶生物