

产品名称：非氨酯
产品别名：**Felbamate; W-554; ADD-03055; 非尔氨酯**

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| 生物活性: | | | | |
| Description | Felbamate (W-554) is a potent nonsedative anticonvulsant whose clinical effect may be related to the inhibition of N-methyl-D-aspartate (NMDA). | | | |
| IC ₅₀ & Target | NMDA Receptor[1]. | | | |
| In Vitro | Felbamate (W-554) is an anti-epileptic drug used in the treatment of epilepsy. It is used to treat partial seizures (with and without generalization) in adults and partial and generalized seizures associated with Lennox-Gastaut syndrome in children. However, an increased risk of potentially fatal aplastic anemia and/or liver failure limit the drugs usage to severe refractory epilepsy[1]. Felbamate (W-554) has been proposed to a unique dual mechanism of action as a positive modulator of GABAA receptors and as a blocker of NMDA receptors, particularly isoforms containing the NR2B subunit. Although it is clear that felbamate does cause pharmacological inhibition of NMDA receptor of relevance of NMDA receptor blockade as a strategy for the treatment of human epilepsy has been questioned. Therefore, the importance of the effects of felbamate on NMDA receptors to its therapeutic action in epilepsy is uncertain[2]. | | | |
| Solvent&Solubility | In Vitro: DMSO : ≥ 100 mg/mL (419.74 mM) * "≥" means soluble, but saturation unknown. | | | |
| | Preparing Stock Solutions | <div>Solvent Mass Concentration</div> | 1 mg | 5 mg |
| | | 1 mM | 4.1974 mL | 20.9872 mL |
| | | 5 mM | 0.8395 mL | 4.1974 mL |
| | | 10 mM | 0.4197 mL | 2.0987 mL |
| | *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。 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。 In Vivo: 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： ——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 | | | |
| | 1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 2.75 mg/mL (11.54 mM); Clear solution 此方案可获得 ≥ 2.75 mg/mL (11.54 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 27.5 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。 | | | |
| | 2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.75 mg/mL (11.54 mM); Clear solution 此方案可获得 ≥ 2.75 mg/mL (11.54 mM, 饱和度未知) 的澄清溶液。 | | | |
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| | <p>以 1 mL 工作液为例，取 100 μL 27.5 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。</p> <p>3.请依序添加每种溶剂： 10% DMSO \rightarrow90% corn oil</p> <p>Solubility: \geq 2.75 mg/mL (11.54 mM); Clear solution</p> <p>此方案可获得 \geq 2.75 mg/mL (11.54 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 27.5 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]. Kuo CC, et al. Use-dependent inhibition of the N-methyl-D-aspartate currents by felbamate: a gating modifier with selective binding to the desensitized channels. Mol Pharmacol. 2004 Feb;65(2):370-80.</p> <p>[2]. Harty TP, et al. Felbamate block of recombinant N-methyl-D-aspartate receptors: selectivity for the NR2B subunit. Epilepsy Res. 2000 Mar;39(1):47-55.</p> |



源叶生物