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产品名称: **Ampalex**

产品别名: 安帕来斯; **CX516; BDP 12; Ampakine CX516**

生物活性:

Description

Ampalex (Ampakine CX516; CX516; BDP 12) is an ampakine and nootropic that acts as an AMPA receptor positive allosteric modulator as a treatment for Alzheimer's disease, schizophrenia and mild cognitive impairment (MCI). IC50 value: Target: AMPA receptor Ampalex ameliorates functional deficits in AMPA receptors in a hippocampal slice model of protein accumulation. Researches suggest that AMPA receptors may be potential pharmaceutical targets for the treatment of neurodegenerative diseases, and highlights AMPAkinases, in particular, as possible therapeutic agents.

In Vitro:

DMSO : ≥ 41 mg/mL (169.92 mM)

\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.1444 mL	20.7220 mL	41.4439 mL
	5 mM	0.8289 mL	4.1444 mL	8.2888 mL
	10 mM	0.4144 mL	2.0722 mL	4.1444 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 (11.40 mM); Clear solution

此方案可获得 ≥ 2.75 mg/mL (11.40 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 (11.40 mM); Clear solution

此方案可获得 ≥ 2.75 mg/mL (11.40 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 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。

3.请依序添加每种溶剂： 10% DMSO →90% corn oil

Solvent&Solubility



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	<p>Solubility: <math>\geq 2.75</math> mg/mL (11.40 mM); Clear solution</p> <p>此方案可获得 <math>\geq 2.75</math> mg/mL (11.40 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 27.5 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>
References	<p>[1]. Broberg BV, Glenthøj BY, Dias R, et al. Reversal of cognitive deficits by an ampakine (CX516) and sertindole in two animal models of schizophrenia--sub-chronic and early postnatal PCP treatment in attentional set-shifting. <i>Psychopharmacology (Berl)</i>. 2009</p> <p>[2]. Kanju PM, Parameshwaran K, Sims C, et al. Ampakine CX516 ameliorates functional deficits in AMPA receptors in a hippocampal slice model of protein accumulation. <i>Exp Neurol</i>. 2008 Nov;214(1):55-61.</p> <p>[3]. Goff DC, Lamberti JS, Leon AC, et al. A placebo-controlled add-on trial of the Ampakine, CX516, for cognitive deficits in schizophrenia. <i>Neuropsychopharmacology</i>. 2008 Feb;33(3):465-72.</p> <p>[4]. O'Neill MJ, Witkin JM. AMPA receptor potentiators: application for depression and Parkinson's disease. <i>Curr Drug Targets</i>. 2007 May;8(5):603-20.</p> <p>[5]. Johnson SA, Simmon VF. Randomized, double-blind, placebo-controlled international clinical trial of the Ampakine CX516 in elderly participants with mild cognitive impairment: a progress report. <i>J Mol Neurosci</i>. 2002 Aug-Oct;19(1-2):197-200.</p>

源叶生物