产品名称：普拉西坦

产品别名： **Pramiracetam**

生物活性：

Description

Pramiracetam is a nootropic drug derived from piracetam, and is more potent. Pramiracetam reportedly improved cognitive deficits associated with traumatic brain injuries. IC50 Value: Target: in vitro: Pramiracetam sulfate did not exhibit any affinity in vitro for dopaminergic , GABAergic, serotoninergic, adrenergic, muscarinic, adenosine (IC50 > 10 uM), and benzodiazepine receptors (IC50 > 1 uM) binding sites [1]. in vivo: In a double-blind, randomized design, two groups of six subjects each received alternating placebo and single 400, 800, 1,200, and 1,600 mg oral doses of pramiracetam after an overnight fast. Mean (+/- SD) peak plasma concentrations of the four dose groups (2.71 +/- 0.54, 5.40 +/- 1.34, 6.13 +/- 0.71, 8.98 +/- 0.71 micrograms/mL) were attained between two to three hours following drug administration [2]. Two doses of pramiracetam (7.5 mg/kg and 15 mg/kg) were administered daily prior to testing for 7 weeks in a 16-arm radial maze in which nine arms were baited with food [3].

Solvent&Solubility

In Vitro:

DMSO : ≥ 100 mg/mL (371.22 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7122 mL	18.5611 mL	37.1223 mL
	5 mM	0.7424 mL	3.7122 mL	7.4245 mL
	10 mM	0.3712 mL	1.8561 mL	3.7122 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°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。

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: ≥ 2.5 mg/mL (9.28 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (9.28 mM，饱和度未知) 的澄清溶液。

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。

2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline)

Solubility: ≥ 2.5 mg/mL (9.28 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (9.28 mM，饱和度未知) 的澄清溶液。

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 生理盐水水溶液中，混合均匀。

	3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (9.28 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (9.28 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。 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 玉米油中，混合均匀。
References	[1]. Warner Lambert, et al. Some Neurochemical Properties of Pramiracetam (CI-879), A New Cognition-Enhancing Agent. [2]. Chang T, et al. Pharmacokinetics of oral pramiracetam in normal volunteers. J Clin Pharmacol. 1985 May-Jun;25(4):291-5.

源叶生物