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产品名称：(E)-1-[(1S)-1-(4-氟苯基)乙基]-3-[3-甲氧基-4-(4-甲基-1H-咪唑-1-YL)亚苄基]哌啶-2-酮
产品别名：E 2012

生物活性：

Description	E 2012 is a potent gamma (γ) secretase modulator without affecting Notch processing. E 2012 inhibits 3β-hydroxysterol Δ24-reductase (DHCR24) at the final step in the cholesterol biosynthesis. E 2012 aims at Alzheimer's disease by reduction of amyloid β-42, and induces cataract following repeated doses in the rat[1].
In Vitro	E2012 has concentration-dependent inhibitory effects on cholesterol biosynthesis in primary culture of rat hepatocytes and HepG2 cells with IC50s of 11.0, and 15.1 nM, respectively[1].
In Vivo	In vivo lenticular concentration of E 2012 after 13-week repeated dose with cataract was well above those where inhibition is observed in vitro. E 2012 induces cataract in the rat by inhibiting DHCR24 at the final step of cholesterol synthesis with associated elevation in desmosterol within the lens, preceded by desmosterol changes that would serve as a predictive safety biomarker for lenticular opacity[2].

Solvent&Solubility

In Vitro:

DMSO : ≥ 50 mg/mL (119.19 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3838 mL	11.9192 mL	23.8385 mL
	5 mM	0.4768 mL	2.3838 mL	4.7677 mL
	10 mM	0.2384 mL	1.1919 mL	2.3838 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 (5.96 mM); Clear solution; Need ultrasonic

此方案可获得 2.5 mg/mL (5.96 mM)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 (5.96 mM); Clear solution; Need ultrasonic

	此方案可获得 2.5 mg/mL (5.96 mM)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 (5.96 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.96 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]. Nakano-Ito K, et al. E2012-induced cataract and its predictive biomarkers. Toxicol Sci. 2014 Jan;137(1):249-58. [2]. Portelius E, Van Broeck B, Andreasson U, Gustavsson MK, Mercken M, Zetterberg H, Borghys H, Blennow K.Acute effect on the Aβ isoform pattern in CSF in response to γ-secretase modulator and inhibitor treatment in dogs.J Alzheimers Dis. 2010;21(3):1005-12.