产品名称：头孢地尼
产品别名：Cefdinir ； FK-482; CI-983

生物活性：

Description	Cefdinir (FK-482) is a semi-synthetic, broad-spectrum antibiotic, which is proved to be effective for common bacterial infections of the ear, sinus, throat, and skin.
IC_{50} & Target	Antibacterial[1].
In Vitro	Cefdinir (FK-482) is a third generation oral cephalosporin antibiotic. Cefdinir (Omnicef) is a semi-synthetic, broad-spectrum antibiotic in the third generation of the cephalosporin class, which is proved to be effective for common bacterial infections of the ear, sinus, throat, and skin. It can be used to treat infections caused by several Gram-negative and Gram-positive bacteria. It is available in US as Omnicef by Abbott Laboratories and in India as Cednir by Abbott, Kefnir by Glenmark and Cefdiel by Ranbaxy. As of 2008, cefdinir was the highest-selling cephalosporin antibiotic in the United States, with more than US$585 million in retail sales of its generic versions alone[1]. Cefdinir (FK-482), a new oral 2-amino-5-thiazolyl cephalosporin, inhibited the luminol-amplified chemiluminescence (LACL) response of human neutrophils stimulated by PMA but not opsonized zymosan, in a concentration-dependent but not time-dependent manner. The LACL response to opsonized zymosan in cytochalasin B-treated neutrophils was, however, inhibited by cefdinir. Furthermore, cefdinir inhibited LACL generation in cell-free systems consisting of H2O2, NaI, and either horseradish peroxidase or a myeloperoxidase-containing neutrophil extract. Orthodianisidine oxidation in these two acellular systems was inhibited by cefdinir[2].
Solvent&Solubility	***In Vitro:*** **DMSO : 33.33 mg/mL (84.29 mM;** Need ultrasonic) **H_2O : < 0.1 mg/mL** (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5290 mL	12.6451 mL	25.2902 mL
5 mM	0.5058 mL	2.5290 mL	5.0580 mL
10 mM	0.2529 mL	1.2645 mL	2.5290 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 (6.32 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.32 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 (6.32 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.32 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 (6.32 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.32 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]. Soejima R. Cefdinir. Jpn J Antibiot. 1992 Oct;45(10):1239-52. [2]. Labro MT, et al. Cefdinir (CI-983), a new oral amino-2-thiazolyl cephalosporin, inhibits human neutrophil myeloperoxidase in the extracellular medium but not the phagolysosome. J Immunol. 1994 Mar 1;152(5):2447-55.