

产品名称：多尼培南(一水合物)

产品别名：**Doripenem (monohydrate)**；多利培南一水合物

生物活性：

Description

Doripenem monohydrate is a new member of the carbapenem class of beta-lactam antibiotics with broad-spectrum coverage of Gram-positive, Gram-negative and anaerobic pathogens. Target: Antibacterial

Doripenem is an ultra-broad-spectrum injectable antibiotic. It is a beta-lactam and belongs to the subgroup of carbapenems. It was launched by Shionogi Co. of Japan under the brand name Finibax in 2005 and is being marketed outside Japan by Johnson & Johnson. It is particularly active against *Pseudomonas aeruginosa*. It is recommended that those allergic to doripenem or to any type of beta-lactam antibiotics such as cephalosporin or other Carbapenems not receive doripenem. Doripenem appears as crystalline powder anywhere from a white to somewhat yellowish colour. Doripenem is moderately soluble in water, slightly soluble in methanol, and virtually insoluble in ethanol. Doripenem is also solution in N,N-dimethylformamide. Doripenem's chemical configuration has 6 asymmetrical carbon atoms (6 stereocentres) and is most commonly supplied as one pure isomer. In terms of doripenem for injection, the crystallized powder drug can form a monohydrate when mixed with water. However, Doripenem has not been proven to possess polymorphism.

Solvent&Solubility

In Vitro:

DMSO : 50 mg/mL (114.02 mM; Need ultrasonic)

H₂O : 10 mg/mL (22.80 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing	1 mM		2.2804 mL	11.4020 mL	22.8040 mL
Stock Solutions	5 mM		0.4561 mL	2.2804 mL	4.5608 mL
	10 mM		0.2280 mL	1.1402 mL	2.2804 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: ≥ 3 mg/mL (6.84 mM); Clear solution

此方案可获得 ≥ 3 mg/mL (6.84 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 30.0 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: ≥ 3 mg/mL (6.84 mM); Clear solution

此方案可获得 ≥ 3 mg/mL (6.84 mM，饱和度未知) 的澄清溶液。

	<p>以 1 mL 工作液为例，取 100 μL 30.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水溶液中，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 3 mg/mL (6.84 mM); Clear solution</p> <p>此方案可获得 \geq 3 mg/mL (6.84 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 30.0 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]. Anderson DL. Doripenem. Drugs Today (Barc). 2006 Jun;42(6):399-404.</p> <p>[2]. Jones RN, et al. Doripenem (S-4661), a novel carbapenem: comparative activity against contemporary pathogens including bactericidal action and preliminary in vitro methods evaluations. J Antimicrob Chemother. 2004 Jul;54(1):144-54. Epub 2004 Jun 9.</p>



源叶生物