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产品名称：Sacubitrilat
产品别名： LBQ-657

生物活性：

Description	Sacubitrilat is an active neprilysin (NEP) inhibitor.
IC_{50} & Target	Neprilysin[1]
In Vitro	Sacubitrilat (LBQ657) is a single diastereomer with specific stereocenters. Sacubitrilat is bound to the active site of NEP by an intricate network of interactions that involves all functional groups of the compound giving rise to the high inhibitory potency of 5 nM[1].
In Vivo	Pharmacokinetics of Sacubitril, Sacubitrilat (LBQ657), and valsartan following the administration of single oral doses of LCZ696 400 or 1200 mg under fasting condition are summarized. The mean plasma concentrations of Sacubitril increases rapidly with a median T_{max} of 0.52 h for the 400 mg dose and 1.05 h for the 1200 mg dose, followed by Sacubitrilat, with the corresponding T_{max} values of 2.07 and 3.05 h, respectively. The median T_{max} for valsartan is 2.07 h for both the LCZ696 400 mg and 1200 mg doses. The C_{max} of Sacubitrilat shows a dose proportional increase, while the C_{max} of Sacubitril and Valsartan shows less than proportional increases between the doses. The arithmetic mean $AUC_{0\text{-}24\ h}$ and AUC_{last} for Sacubitril and Sacubitrilat increases approximately dose proportionally, but shows less than dose proportional increase for Valsartan[2].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 100 mg/mL (260.80 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6080 mL	13.0399 mL	26.0797 mL
	5 mM	0.5216 mL	2.6080 mL	5.2159 mL
	10 mM	0.2608 mL	1.3040 mL	2.6080 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 (6.52 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.52 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 (6.52 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.52 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 (6.52 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.52 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]. Schiering N, et al. Structure of neprilysin in complex with the active metabolite of sacubitril. Sci Rep. 2016 Jun 15;6:27909. [2]. Langenickel TH, et al. Single therapeutic and supratherapeutic doses of sacubitril/valsartan (LCZ696) do not affect cardiac repolarization. Eur J Clin Pharmacol. 2016 Aug;72(8):917-24.