



上海源叶生物科技有限公司
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产品名称: **Merimepodib**
产品别名: **VI-21497; VX-497; MMP**

生物活性:

Description	Merimepodib is a novel noncompetitive inhibitor of IMPDH (Inosine monophosphate dehydrogenase).				
In Vitro	VX-497 has antiproliferative effect on lymphoid and keratinocyte cells. The antiproliferative effect of VX-497 in cells is reversed within 48 h of its removal[1]. VX-497 has intermediate antiviral activity against a second group of viruses, which includes HSV-1, parainfluenza-3 virus, BVDV, VEEV, and dengue virus, with IC50s ranging from 6 to 19 μM. VX-497 is 100-fold more potent, with an IC50 of 380 nM and a corresponding CC50 of 5.2 μM, for a therapeutic index of 14. The antiviral activity of VX-497 in HepG2.2.2.15 cells is reversed threefold by the addition of guanosine[2].				
In Vivo	Oral administration of VX-497 inhibits the primary IgM antibody response in a dose-dependent manner, with an ED50 value of appr 30-35 mg/kg in mice. Single daily dosing of VX-497 is observed to be as effective as twice-daily dosing in this model of immune activation[1]. GVHD developed in the vehicle-treated allografted F1 mice and treatment with VX-497 improved all manifestations of the disease significantly. The 2.9-fold increase in spleen weight in allografted animals is reduced to a 1.6-fold increase in the VX-497-treated mice. Serum IFN-gamma levels are increased 54-fold in the vehicle group while there is a 7.4-fold increase in VX-497-treated animals[3].				
Solvent&Solubility	In Vitro: DMSO : ≥ 31 mg/mL (68.51 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	2.2101 mL	11.0507 mL	22.1014 mL
		5 mM	0.4420 mL	2.2101 mL	4.4203 mL
		10 mM	0.2210 mL	1.1051 mL	2.2101 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: ≥ 2.5 mg/mL (5.53 mM); Clear solution				
	此方案可获得 ≥ 2.5 mg/mL (5.53 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。				



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	2.请依序添加每种溶剂: 10% DMSO→ 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.53 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.53 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 (5.53 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.53 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]. Jain J, et al. VX-497: a novel, selective IMPDH inhibitor and immunosuppressive agent. J Pharm Sci. 2001 May;90(5):625-37. [2]. Markland W, et al. Broad-spectrum antiviral activity of the IMP dehydrogenase inhibitor VX-497: a comparison with ribavirin and demonstration of antiviral additivity with alpha interferon. Antimicrob Agents Chemother. 2000 Apr;44(4):859-66. [3]. Decker CJ, et al. The novel IMPDH inhibitor VX-497 prolongs skin graft survival and improves graft versus host disease in mice. Drugs Exp Clin Res. 2001;27(3):89-95.
实验参考:	
Cell Assay	The murine fibroblast L929 cell line is cultured in Eagle minimal essential medium supplemented with 10% fetal bovine serum, nonessential amino acids, 50 U of penicillin per mL, 50 μg of streptomycin per mL, and 2 mM L-glutamine. EMCV is infected at 500 PFU/107 L929 cells. Cells are left untreated or are treated with different concentrations of murine IFN-α alone, VX-497 alone, or combinations thereof. [2]
References	[1]. Jain J, et al. VX-497: a novel, selective IMPDH inhibitor and immunosuppressive agent. J Pharm Sci. 2001 May;90(5):625-37. [2]. Markland W, et al. Broad-spectrum antiviral activity of the IMP dehydrogenase inhibitor VX-497: a comparison with ribavirin and demonstration of antiviral additivity with alpha interferon. Antimicrob Agents Chemother. 2000 Apr;44(4):859-66. [3]. Decker CJ, et al. The novel IMPDH inhibitor VX-497 prolongs skin graft survival and improves graft versus host disease in mice. Drugs Exp Clin Res. 2001;27(3):89-95.