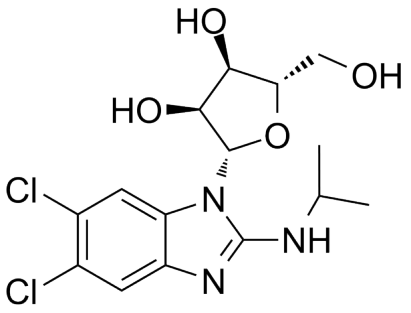
马立巴韦

产品编号：MB1147
质量标准：>98%,BR
包装规格：10MG/100MG/1G
产品形式：solid

基本信息

分子式	$C_{15}H_{19}Cl_2N_3O_4$	结构式	
分子量	376.24		
CAS No.	176161-24-3		
储存条件	-20℃，避光防潮密闭干燥		
溶解性 (25°C)	DMSO：50 mg/mL		
注意事项	溶解性是在室温下测定的，如果温度过低，可能会影响其溶解性。		
其他说明	为了您的安全和健康，请穿实验服并戴一次性手套操作。		

简介：马立巴韦（Maribavir）是一种新型抗巨细胞病毒(CMV)药物,通过抑制 pUL97 蛋白激酶,阻断病毒的复制。

物理性状及指标：

产品颜色：……white to beige
溶解性 ：……DMSO：50 mg/mL
含量 ：……>98%,BR

生物活性

作用机制：马立巴韦是一种新的苯并咪唑核糖 苷类药物，属于 pUL97 蛋白激酶抑制剂，对 CMV 具有独特的作用机制。

以下表格内容来源公开文献，仅供参考：

Target	histone phosphorylation
体外实验	Maribavir is a potent inhibitor of the autophosporylation of the wild type and all the major Ganciclovir (GCV) resistant UL97 mutants analysed with a mean IC50 of 35 nM. The M460I mutation results in hypersensitivity to Maribavir with an IC50 of 4.8 nM. A Maribavir resistant mutant of UL97 (L397R) is functionally compromised as both a Ganciclovir kinase and a protein kinase (~ 10% of wild type levels). Enzyme kinetic experiments demonstrate that Maribavir is a competitive inhibitor of ATP with a Ki of 10 nM[1]. Maribavir (1263W94) inhibits viral replication in a dose-dependent manner, with IC50 of 0.12±0.01 μM as measured by a multicycle DNA hybridization assay. The pUL97 protein kinase is strongly inhibited by Maribavir, with 50% inhibition occurring at 3 nM[2].

细胞实验	Maribavir (1263W94) is dissolved in DMSO and stored, and then diluted with appropriate media before use[2]. For these studies MRC-5 cells are seeded in 24-well plates at ~5×104 cells/well and grown for 3 days in MEM 8-1-1 to confluence (~1.1×105 cells/well). The cells are infected with AD169 in MEM 2-1-1 at an MOI ranging from 1 to 3 and incubated at 37°C for 90 min to allow viral adsorption. The unadsorbed virus is removed and replaced with 1 mL of MEM 2-1-1. To test the effect of compounds on viral DNA synthesis or maturation, Maribavir, BDCRB, or GCV is added to the medium at the concentrations indicated for each experiment[2].
激酶实验	Enzyme kinetic analysis is performed on the purified wild type and mutant UL97 protein species using increasing concentrations of ATP (2 μM to 20 μM). The amount of incorporated radiolabelled phosphate is plotted against the concentration of ATP in a Lineweaver Burke plot to determine the Km for ATP for each UL97 species. The effect of Maribavir upon the rate of radiolabelled phosphate incorporation by wild type or mutant UL97 is determined by protein kinase assays at a fixed concentration of Maribavir (0.5 μM) as above, or with increasing concentrations of Maribavir (0.01 μM to 5.0 μM) to determine the IC50 of Maribavir for each UL97 species. In order to determine the nature of the inhibition mediated by Maribavir, plots of 1/v vs 1/ATP with increasing concentrations of Maribavir are constructed. Competitive inhibition is evident if the family of lines cconverged on the y-axis at 1/Vmax. The change in slope caused by the addition of Maribavir is used to calculate the Ki[1].
文献链接	[1] Shannon-Lowe CD, et al. The effects of Maribavir on the autophosphorylation of ganciclovir resistant mutants of the cytomegalovirus UL97 protein. Herpesviridae. 2010 Dec 7;1(1):4. [2] Biron KK, et al. Potent and selective inhibition of human cytomegalovirus replication by 1263W94, a benzimidazole L-riboside with a unique mode of action. Antimicrob Agents Chemother. 2002 Aug;46(8):2365-72.

使用浓度：具体使用浓度请参考相关文献，并根据自身实验条件（如实验目的，细胞种类，培养特性等）进行摸索和优化。

溶液配置表：

体积 / 质量 / 浓度	1 mg	5 mg	10 mg
1 mM	2.6579 mL	13.2894 mL	26.5788 mL
5 mM	0.5316 mL	2.6579 mL	5.3158 mL
10 mM	0.2658 mL	1.3289 mL	2.6579 mL
50 mM	0.0532 mL	0.2658 mL	0.5316 mL

用途及描述： 科研试剂，广泛应用于分子生物学，药理学等科研方面，严禁用于人体。CMV 感染治疗的迫切需要寻找新的治疗靶点，而 pUL97 蛋白激酶是治疗 CMV 蛋白感染的靶点。马立巴韦是抑制 pUL97 蛋白激酶

及其天然底物的抗 CMV 药物。

【注意】

●我司产品为非无菌包装，若用于细胞培养，请提前做预处理，除去热原细菌，否则会导致染菌。

●部分产品我司仅能提供部分信息，我司不保证所提供信息的权威性，以上数据仅供参考交流研究之用。