



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

产品名称: **Presatovir**
产品别名: **GS-5806**

生物活性:				
Description	Presatovir (GS-5806) is a novel, orally bioavailable RSV fusion inhibitor with a mean EC ₅₀ value of 0.43 nM.			
IC ₅₀ & Target	EC ₅₀ : 0.43 nM (RSV) ^[1]			
In Vitro	Presatovir is a novel, orally bioavailable RSV fusion inhibitor discovered following a lead optimization campaign on a hit originated from a phenotypic RSV antiviral high-throughput screen. Presatovir exhibits potent activity against a wide range of RSV A and B clinical isolates with a mean EC ₅₀ value of 0.43 nM ^[1] . GS-5806 inhibits pre to post triggered conformational changes of RSV F protein, suggesting a possible mechanism for antiviral activity ^[2] .			
In Vivo	Presatovir demonstrates dose-dependent (0-30 mg/kg) antiviral efficacy in a cotton rat model of RSV infection. Oral bioavailability in preclinical species ranges from 46 to 100%, with penetration of the compound into the lung tissue demonstrated in Sprague-Dawley rats. Multidose oral treatment of Presatovir appears safe in adults, and in healthy human volunteers experimentally infected with RSV, a potent antiviral effect and reduction in disease severity is observed in the high dose group. A group treated with a lower dose of Presatovir allows for a PK-PD relationship to be established to help guide future dose selections ^[1] .			
Solvent&Solubility	In Vitro: DMSO : 6 mg/mL (11.28 mM; Need ultrasonic and warming) H ₂ O : < 0.1 mg/mL (insoluble)			
	<div>Preparing Stock Solutions</div>	<div>Solvent / Mass / Concentration</div>	1 mg	5 mg
		1 mM	1.8795 mL	9.3974 mL
		5 mM	0.3759 mL	1.8795 mL
		10 mM	0.1879 mL	0.9397 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: ≥ 0.6 mg/mL (1.13 mM); Clear solution 此方案可获得 ≥ 0.6 mg/mL (1.13 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例, 取 100 μL 6.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中, 混合均匀;			



上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话: 021-61312973 传真: 021-55068248
网址: www.shyuanye.com
邮箱: shyysw@sina.com

	<p>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。</p> <p>2.请依序添加每种溶剂: 10% DMSO\rightarrow 90% (20% SBE-β-CD in saline)</p> <p>Solubility: ≥ 0.6 mg/mL (1.13 mM); Clear solution</p> <p>此方案可获得 ≥ 0.6 mg/mL (1.13 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 μL 6.0 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。</p> <p>3.请依序添加每种溶剂: 10% DMSO \rightarrow90% corn oil</p> <p>Solubility: ≥ 0.6 mg/mL (1.13 mM); Clear solution</p> <p>此方案可获得 ≥ 0.6 mg/mL (1.13 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 6.0 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]. Mackman RL, et al. Discovery of an oral respiratory syncytial virus (RSV) fusion inhibitor (GS-5806) and clinical proof of concept in a human RSV challenge study. J Med Chem. 2015 Feb 26;58(4):1630-1643.</p> <p>[2]. Samuel D, et al. GS-5806 inhibits pre- to postfusion conformational changes of the respiratory syncytial virus fusion protein. Antimicrob Agents Chemother. 2015 Nov;59(11):7109-12.</p>
实验参考:	
Cell Assay	<p>GS-5806 are diluted in 100% DMSO. To conduct the cytopathic antiviral assay, 0.4 μL of 100\timesconcentrated 3-fold serially diluted drug is added to 20 μL of cell culture medium in a 384-well plate. HEP-2 cells are then suspended in MEM plus 10% FBS at a density of 1×10^5 cells/mL, are infected in bulk with RSV A2 at a titer of approximately $1\times 10^{4.5}$ tissue culture infectious doses/mL. Immediately following infection, 20 μL of RSV-infected cells are added to each well. The cells are then cultured for 4 days at 37 $^{\circ}$C. Following this incubation the cells are allowed to equilibrate to 25$^{\circ}$C. The RSV-induced cytopathic effect is determined by adding 40 μL of Cell-Titer Glo viability reagent. Following a 10 min incubation at 25 $^{\circ}$C, cell viability is determined^[1].</p>
References	<p>[1]. Mackman RL, et al. Discovery of an oral respiratory syncytial virus (RSV) fusion inhibitor (GS-5806) and clinical proof of concept in a human RSV challenge study. J Med Chem. 2015 Feb 26;58(4):1630-1643.</p> <p>[2]. Samuel D, et al. GS-5806 inhibits pre- to postfusion conformational changes of the respiratory syncytial virus fusion protein. Antimicrob Agents Chemother. 2015 Nov;59(11):7109-12.</p>