

产品名称：**GLPG0634**

产品别名：**Filgotinib**

生物活性:				
Description	Filgotinib (GLPG0634) is a selective <b>JAK1</b> inhibitor with <b>IC<sub>50</sub></b> of 10 nM, 28 nM, 810 nM, and 116 nM for JAK1, JAK2, JAK3, and TYK2, respectively.			
IC <sub>50</sub> & Target	JAK1	JAK2	Tyk2	JAK3
	10 nM (IC <sub>50</sub> )	28 nM (IC <sub>50</sub> )	116 nM (IC <sub>50</sub> )	810 nM (IC <sub>50</sub> )
In Vitro	Filgotinib (GLPG0634) dose-dependently inhibits the differentiation of Th2 cells mediated by IL-4, a cytokine that signals through JAK1 and JAK3. Filgotinib also inhibits Th1 differentiation with similar potencies of 1 μM or lower[1]. Filgotinib (GLPG0634) does not inhibit JAK2 homodimer-mediated signaling induced by EPO or PRL (IC <sub>50</sub> > 10 μM)[2].			
In Vivo	Filgotinib (GLPG0634; 3, 10, 30 mg/kg, p.o.) dose-dependently prevents disease progression in the therapeutic rat CIA model. Filgotinib (50 mg/kg, o.p.) protects bone and cartilage from degradation, effectively reduces infiltration of T cells (CD3+ cells) and macrophages (F4/80+ cells) in the paw, and decreases the serum levels of all cytokines and chemokines measured, including IL-6, IP-10, XCL1, and MCP-1[1]. Filgotinib (GLPG0634; 0.1 and 0.3 mg/kg) shows efficacy in the rat CIA model[2].			
Solvent&Solubility	<b>In Vitro:</b> <b>DMSO : 25 mg/mL (58.75 mM; Need ultrasonic)</b> <b>H<sub>2</sub>O : &lt; 0.1 mg/mL (insoluble)</b>			
	Preparing Stock Solutions	<div>Solvent / Mass / Concentration</div>	1 mg	5 mg
		1 mM	2.3502 mL	11.7509 mL
		5 mM	0.4700 mL	2.3502 mL
		10 mM	0.2350 mL	1.1751 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。			
	<b>In Vivo:</b> 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 <b>In Vitro</b> 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 (5.88 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.88 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 (5.88 mM); Clear solution			

	<p>此方案可获得 <math>\geq 2.5</math> mg/mL (5.88 mM, 饱和度未知) 的澄清溶液。</p> <p>以 1 mL 工作液为例, 取 100 <math>\mu</math>L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 <math>\mu</math>L 20% 的 SBE-<math>\beta</math>-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 <math>\rightarrow</math> 90% corn oil</p> <p>Solubility: <math>\geq 2.5</math> mg/mL (5.88 mM); Clear solution</p> <p>此方案可获得 <math>\geq 2.5</math> mg/mL (5.88 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 <math>\mu</math>L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 <math>\mu</math>L 玉米油中, 混合均匀。</p>
References	<p>[1]. <a href="#">Van Rompaey L, et al. Preclinical characterization of GLPG0634, a selective inhibitor of JAK1, for the treatment of inflammatory diseases. J Immunol. 2013, 191(7), 3568-3577.</a></p> <p>[2]. <a href="#">Menet CJ, et al. Triazolopyridines as Selective JAK1 Inhibitors: From Hit Identification to GLPG0634. J Med Chem. 2014 Nov 17.</a></p>
实验参考:	
Animal Administration	<p>Filgotinib is orally dosed as a single esophageal gavage at 5 mg/kg (dosing volume of 5 mL/kg) and i.v. dosed as a bolus via the caudal vein at 1 mg/kg (dosing volume of 5 mL/kg). In the rat study, each group consists of three rats and blood samples are collected via the jugular vein. In the mouse study, each group consists of 21 mice (n=3/time point) and blood samples are collected by intracardiac puncture under isoflurane anesthesia. Lithium heparin is used as anticoagulant and blood is taken at 0.05, 0.25, 0.5, 1, 3, 5, and 8 h (i.v. route) and 0.25, 0.5, 1, 3, 5, 8, and 24 h (by mouth). [1]</p>
References	<p>[1]. <a href="#">Van Rompaey L, et al. Preclinical characterization of GLPG0634, a selective inhibitor of JAK1, for the treatment of inflammatory diseases. J Immunol. 2013, 191(7), 3568-3577.</a></p> <p>[2]. <a href="#">Menet CJ, et al. Triazolopyridines as Selective JAK1 Inhibitors: From Hit Identification to GLPG0634. J Med Chem. 2014 Nov 17.</a></p>

源叶生物