

产品名称: **PIK-294**

产品别名: **PIK-294**

生物活性:						
Description	PIK-294 is a potent p110δ-selective inhibitor with an IC ₅₀ of 10 nM.					
IC₅₀ & Target	p110δ	p110γ	p110β	p110α		
	10 nM (IC ₅₀)	160 nM (IC ₅₀)	490 nM (IC ₅₀)	10 μM (IC ₅₀)		
In Vitro	<p>Analysis of the specific Class I PI3 Kinase catalytic isoforms p110α (IC₅₀=10 μM), p110β (IC₅₀=0.49 μM), p110δ (IC₅₀=0.01 μM) and p110γ (IC₅₀=0.16 μM) using the inhibitor PIK-294 indicates differential roles in CXCL8-induced neutrophil migration. PIK-294 inhibits both chemokinetic and chemotactic CXCL8-induced migration[1]. When cells are pre-treated with the PI3Kδ selective inhibitor PIK-294, CXCL8-induced migration in the non-gradient and the gradient assay is significantly inhibited. PIK-294 is used at two concentrations 1 μM and 10 μM. Pre-treatment with 1 μM inhibits migration to a greater extent in the non-gradient assay than in the gradient assay. Pre-treatment with 10 μM inhibits migration to a significantly greater extent than the lower dose in both assays. Prior to stimulation with CXCL8, pre-treatment of the cells with the PI3K inhibitors, Wortmannin (50 nM), PIK-294 (10 μM) and AS-605240 (10 μM) for 2 minutes, cause a reduction in the phosphorylation of Akt. Pre-treatment of cells prior to stimulation with GM-CSF and the DMSO control with the PI3K inhibitors Wortmannin (50 nM), PIK-294 (10 μM) and AS-605240 (10 μM) for 2 minutes, reduce the phosphorylation of Akt (p<0.05 for inhibition of PI3Kδ) [2].</p>					
Solvent&Solubility	<p>In Vitro: DMSO : ≥ 40 mg/mL (81.71 mM) * "≥" means soluble, but saturation unknown.</p>					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM	2.0428 mL	10.2139 mL	20.4278 mL	
5 mM	0.4086 mL	2.0428 mL	4.0856 mL			
10 mM	0.2043 mL	1.0214 mL	2.0428 mL			
<p>*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。</p>						
References	<p>[1]. Knight ZA, et al. A pharmacological map of the PI3-K family defines a role for p110alpha in insulin signaling. Cell. 2006 May 19;125(4):733-47.</p> <p>[2]. Martin KJ, et al. The role of phosphoinositide 3-kinases in neutrophil migration in 3D collagen gels. PLoS One. 2015 Feb 6;10(2):e0116250.</p>					
实验参考:						
Cell Assay	<p>Neutrophils at a concentration of 6×10⁶ cells/mL are pre-treated with 1 μM and 10 μM of the PIK-294 for 30 mins prior to the addition of CXCL8 (100 ng/mL) or 0.5 ng/mL GM-CSF. Then a non-gradient or gradient gel assay depending on the type of migration is performed. The gels are then constructed and the migration studied[2]</p>					
References	<p>[1]. Knight ZA, et al. A pharmacological map of the PI3-K family defines a role for p110alpha in insulin signaling. Cell. 2006 May 19;125(4):733-47.</p>					

[2]. Martin KJ, et al. The role of phosphoinositide 3-kinases in neutrophil migration in 3D collagen gels. *PLoS One*. 2015 Feb 6;10(2):e0116250.



源叶生物