

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.				
IC ₅₀ & Target	p110δ	p110γ	p110β	p110α	
	10 nM (IC ₅₀)	160 nM (IC ₅₀)	490 nM (IC ₅₀)	10 μM (IC ₅₀)	
In Vitro	Analysis of the specific Class I PI3 Kinase catalytic isoforms p110α (IC ₅₀ =10 μM), p110β (IC ₅₀ =0.49 μM), p110δ (IC ₅₀ =0.01 μM) and p110γ (IC ₅₀ =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].				
Solvent&Solubility	In Vitro: DMSO : ≥ 40 mg/mL (81.71 mM) * "≥" means soluble, but saturation unknown.				
	<div>Preparing Stock Solutions</div>	<div><div>Solvent</div><div>Mass</div><div>Concentration</div></div>	1 mg	5 mg	10 mg
		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
*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。					
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	Neutrophils at a concentration of 6×10 ⁶ 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]				
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. <u>PLoS One</u> . 2015 Feb 6;10(2):e0116250.
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