

产品名称: Tyrphostin 9
产品别名: Tyrphostin A9

生物活性:

Description	<p>Tyrphostin A9, a tyrosine kinase inhibitor, is a potent inducer of mitochondrial fission. Tyrphostin A9 emerged as the most potent and selective of 51 tyrosine kinase inhibitors tested against the TNF-induced respiratory burst. IC50 value: Target: Multi tyrosine kinase Tyrphostin A9 inhibited TNF-induced tyrosine phosphorylation of pyk2 without blocking the cells' bactericidal activity. Tyrphostin A9 is a PDGF receptor tyrosine kinase inhibitor (IC50 = 500 nM). Recent findings suggest that signaling via PDGF receptor tyrosine kinases is not necessary for the shift of the smooth muscle cells from a contractile to a synthetic phenotype. On the other hand these enzymes apparently carry out important functions in the control of intracellular membrane traffic and cell division.</p>																	
Solvent&Solubility	<p>In Vitro:</p> <p>DMSO : ≥ 100 mg/mL (354.13 mM)</p> <p>H₂O : < 0.1 mg/mL (insoluble)</p> <p>* "≥" means soluble, but saturation unknown.</p> <table><tr><td rowspan="4">Preparing Stock Solutions</td><td><div>Solvent / Mass / Concentration</div></td><td>1 mg</td><td>5 mg</td><td>10 mg</td></tr><tr><td>1 mM</td><td>3.5413 mL</td><td>17.7066 mL</td><td>35.4133 mL</td></tr><tr><td>5 mM</td><td>0.7083 mL</td><td>3.5413 mL</td><td>7.0827 mL</td></tr><tr><td>10 mM</td><td>0.3541 mL</td><td>1.7707 mL</td><td>3.5413 mL</td></tr></table> <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。</p> <p>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。</p> <p>In Vivo:</p> <p>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：</p> <p>——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</p> <p>1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline</p> <p>Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (8.85 mM, 饱和度未知) 的澄清溶液。</p> <p>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。</p>	Preparing Stock Solutions	<div>Solvent / Mass / Concentration</div>	1 mg	5 mg	10 mg	1 mM	3.5413 mL	17.7066 mL	35.4133 mL	5 mM	0.7083 mL	3.5413 mL	7.0827 mL	10 mM	0.3541 mL	1.7707 mL	3.5413 mL
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	<p>[1]. Park SJ, Park YJ, Shin JH, et al. A receptor tyrosine kinase inhibitor, Tyrphostin A9 induces cancer cell death through Drp1 dependent mitochondria fragmentation. <i>Biochem Biophys Res Commun.</i> 2011 May 13;408(3):465-70.</p> <p>[2]. Richard F. Loeser, Christopher B. Forsyth, Allen M. Samarel et al. Fibronectin Fragment Activation of Proline-rich Tyrosine Kinase PYK2 Mediates Integrin Signals Regulating Collagenase-3 Expression by Human Chondrocytes through a Protein Kinase C-dependent Pathway. <i>The Journal of Biological Chemistry.</i> 2003, 278, 24577-24585.</p>																	

References

- [3]. Michele Fuortes, Maxine Melchior, Hyunsil Han, et al. Role of the tyrosine kinase pyk2 in the integrin-dependent activation of human neutrophils by TNF. J Clin Invest. 1999;104(3):327-335.
- [4]. Johan Thyberg . Tyrphostin A9 and wortmannin perturb the Golgi complex and block proliferation of vascular smooth muscle cells. European Journal of Cell Biology.1998,76(1): 33-42
- [5]. R. Marhaba, F. Mary, C. Pelassy, et al. Tyrphostin A9 inhibits calcium release-dependent phosphorylations and calcium entry via calcium release-activated channel in Jurkat T cells. The Journal of Immunology. 1996,157 (4): 1468-1473



源叶生物