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产品名称: **NSC 42834**
产品别名: **JAK2 Inhibitor V; Z3**

生物活性:					
Description	NSC 42834 (JAK2 Inhibitor V), a novel specific inhibitor of Jak2, inhibits Jak2-V617F and Jak2-WT autophosphorylation in a dose-dependent manner but was not cytotoxic to cells at concentrations that inhibited kinase activity.				
IC ₅₀ & Target	JAK2-WT	JAK2-V617F			
	15 μM (IC ₅₀)	28 μM (IC ₅₀)			
In Vitro	NSC 42834 (JAK2 Inhibitor V) selectively inhibited Jak2 kinase function with no effect on Tyk2 or c-Src kinase function. NSC 42834 significantly inhibited proliferation of the Jak2-V617F-expressing, human erythroleukemia cell line, HEL 92.1.7. The NSC 42834-mediated reduction in cell proliferation correlated with reduced Jak2 and STAT3 tyrosine phosphorylation levels as well as marked cell cycle arrest. Finally, NSC 42834 inhibited the growth of hematopoietic progenitor cells isolated from the bone marrow of an essential thrombocythemia patient harboring the Jak2-V617F mutation and a polycythemia vera patient carrying a Jak2-F537I mutation.				
Solvent&Solubility	<i>In Vitro:</i> DMSO : ≥ 43 mg/mL (124.84 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	<div><div>Solvent</div><div>Mass</div><div>Concentration</div></div>	1 mg	5 mg	10 mg
		1 mM	2.9032 mL	14.5159 mL	29.0318 mL
		5 mM	0.5806 mL	2.9032 mL	5.8064 mL
		10 mM	0.2903 mL	1.4516 mL	2.9032 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]. Jacqueline Sayyah, Andrew Magis, David A. Ostrov, et al. Z3, a novel Jak2 tyrosine kinase small-molecule inhibitor that suppresses Jak2-mediated pathologic cell growth . Mol Cancer Ther 2008;7(8):2308-18.</p> <p>[2]. Jacqueline Sayyah, Peter P. Sayeski. Jak2 inhibitors: Rationale and role as therapeutic agents in hematologic malignancies. Current Oncology Reports. 2009, 11(2): 117-124.</p> <p>[3]. Ehab Atallah , Srdan Verstovsek . Prospect of JAK2 inhibitor therapy in myeloproliferative neoplasms. Expert Review of Anticancer Therapy. 2009,9 (5):663-670.</p>				