Product Data Sheet

Product Name: JAK2 Inhibitor V, Z3
Cat. No.: GC13826

Chemical Properties

Cas. No.	195371-52-9		
Chemical Name	2-methyl-1-phenyl-4-(pyridin-2-yl)-2-(2-(pyridin-2-yl)ethyl)butan-1-one		
SMILES	CC(CCC1=CC=CC=N1)(C(C2=CC=CC=C2)=O)CCC3=CC=CC=N3		
Formula	$C_{23}H_{24}N_2O$	M.Wt	344.45
Solubility	DMF: 30 mg/ml,DMSO: 20 mg/ml,Ethanol: 30 mg/ml,Ethanol:PBS(pH 7.2) (1:1): 0.5 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	JAK2 Inhibitor V, Z3		

Background

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.

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.

Caution: Product has not been fully validated for medical applications. For research use only.
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References:
[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.
[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.
[3]. Ehab Atallah , Srdan Verstovsek . Prospect of JAK2 inhibitor therapy in myeloproliferative neoplasms. Expert Review of Anticancer Therapy. 2009,9 (5):663-670.

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