

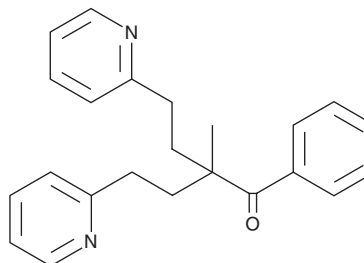
PRODUCT INFORMATION



JAK2 Inhibitor V

Item No. 17684

CAS Registry No.: 195371-52-9
Formal Name: 2-methyl-1-phenyl-4-(2-pyridinyl)-2-[2-(2-pyridinyl)ethyl]-1-butanone
Synonyms: Janus-Associated Kinase Inhibitor V, NSC 42834, Z3
MF: C₂₃H₂₄N₂O
FW: 344.5
Purity: ≥95%
UV/Vis.: λ_{max}: 245, 262, 268 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

JAK2 inhibitor V is supplied as a solution in ethanol. To change the solvent, simply evaporate the JAK2 inhibitor V under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of JAK2 inhibitor V in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

JAK2 inhibitor V is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of JAK2 inhibitor V should be diluted with the aqueous buffer of choice. JAK2 inhibitor V has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Janus-associated kinases (JAKs) are cytoplasmic tyrosine kinases that are required for activating the signaling of certain cytokines and growth factor receptors. Many myeloproliferative diseases have been linked to a mutation in JAK2 in which a switch from valine to phenylalanine occurs at the 617 position (V617F).¹ JAK2 Inhibitor V is an inhibitor of the autophosphorylation of wild type and V617F mutant forms of JAK2, displaying IC₅₀ values between 10 and 30 μM.² It has no effect on TYK2 or c-Src kinase function. JAK2 Inhibitor V blocks the proliferation of erythroleukemia cells and human hematopoietic progenitor cells expressing JAK2-V617F.²

References

1. Gozgit, J.M., Beberitz, G., Patil, P., *et al.* Effects of the JAK2 inhibitor, AZ960, on Pim/BAD/BCL-xL survival signaling in the human JAK2 V617F cell line SET-2. *J. Biol. Chem.* **283**(47), 32334-32343 (2008).
2. Sayyah, J., Magis, A., Ostrov, D.A., *et al.* Z3, a novel Jak2 tyrosine kinase small-molecule inhibitor that suppresses Jak2-mediated pathologic cell growth. *Mol. Cancer Ther.* **7**(8), 2308-2318 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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