

PRODUCT INFORMATION

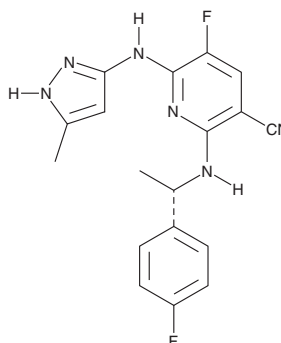


AZ 960

Item No. 16731

CAS Registry No.: 905586-69-8
Formal Name: 5-fluoro-2-[[[(1S)-1-(4-fluorophenyl)ethyl]amino]-6-[(5-methyl-1H-pyrazol-3-yl)amino]-3-pyridinecarbonitrile

MF: C₁₈H₁₆F₂N₆
FW: 354.4
Purity: ≥98%
UV/Vis.: λ_{max}: 272, 348, 353 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

AZ 960 is supplied as a crystalline solid. A stock solution may be made by dissolving the AZ 960 in the solvent of choice, which should be purged with an inert gas. AZ 960 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AZ 960 in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

AZ 960 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AZ 960 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AZ 960 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO: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 cytokine and growth factor receptors. Many myeloproliferative diseases have been linked to a mutation in JAK2 where a switch from valine to phenylalanine occurs at the 617 position (V617F).¹ Furthermore, constitutive activation of the JAK2 signaling pathway is associated with aggressive adult T cell leukemia/lymphoma.² AZ 960 inhibits JAK2 with a K_i value of 0.45 nM *in vitro*.¹ It can decrease STAT3/5 phosphorylation and inhibit cell proliferation in a SET-2 human megakaryoblastic cell line that is heterozygous for the JAK2 V617F mutation with a GI₅₀ value of 33 nM.¹ AZ 960 can also induce apoptosis in human T cell lymphotropic virus type 1-infected (IC₅₀ = ~1 μM), which corresponds to a downregulation of phosphorylated forms of JAK2 and Bcl-2 family proteins.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. Yang, J., Ikezoe, T., Nishioka, C., *et al.* AZ960, a novel Jak2 inhibitor, induces growth arrest and apoptosis in adult T-cell leukemia cells. *Mol. Cancer Ther.* **9**(12), 3386-3395 (2010).

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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