

PRODUCT INFORMATION



K03861

Item No. 19921

CAS Registry No.: 853299-07-7

Formal Name: N-[4-[(2-amino-4-pyrimidinyl)oxy]phenyl]-N'-[4-[(4-methyl-1-piperazinyl)methyl]-3-(trifluoromethyl)phenyl]-urea

Synonym: AUZ454

MF: C₂₄H₂₆F₃N₇O₂

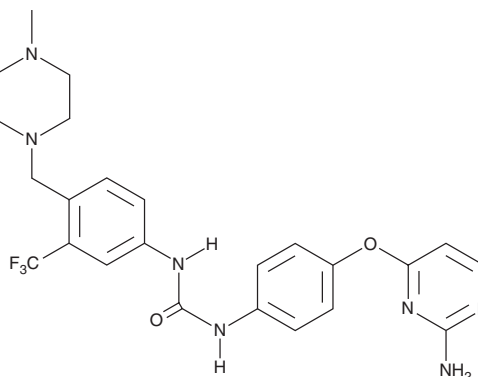
FW: 501.5

Purity: ≥98%

Supplied as: A 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

K03861 is supplied as a solid. A stock solution may be made by dissolving the K03861 in the solvent of choice, which should be purged with an inert gas. K03861 is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

K03861 is an inhibitor of cyclin-dependent kinase 2 (Cdk2).¹ It binds to wild-type Cdk2, Cdk2^{C118L}, Cdk2^{A144C}, and Cdk2^{C118L/A144C} (K_d s = 50, 18.6, 15.4, and 9.7 nM, respectively). K03861 selectively inhibits the proliferation of IL-3-stimulated Ba/F3 cells expressing an FMS-related tyrosine kinase 3 bearing internal-tandem duplication (FLT3-ITD) over wild-type Ba/F3 cells (IC_{50} s = ~0.001 and > 0.1 μM, respectively).² It inhibits human cytomegalovirus replication in primary human monocyte-derived macrophages (IC_{50} = 1.028 μM).³ K03861 (10 μM) inhibits spindle organization and chromosome alignment in meiosis I and prevents egg activation in isolated mouse oocytes.⁴

References

- Alexander, L.T., Möbitz, H., Druce, P., *et al.* Type II inhibitors targeting CDK2. *ACS Chem. Biol.* **10**(9), 2116-2125 (2015).
- Weisberg, E., Roesel, J., Furet, P., *et al.* Antileukemic effects of novel first- and second-generation FLT3 inhibitors: Structure-affinity comparison. *Genes Cancer* **1**(10), 1021-1032 (2010).
- Syrgos, G.V., Feige, M., Dirlam, A., *et al.* Abemaciclib restricts HCMV replication by suppressing pUL97-mediated phosphorylation of SAMHD1. *Antiviral Res.* **217**, 105689 (2023).
- Li, J., Chang, H.-Y., Yi, Z.-Y., *et al.* Transient inhibition of CDK2 activity prevents oocyte meiosis I completion and egg activation in mouse. *J. Cell. Physiol.* **237**(11), 4317-4325 (2022).

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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