

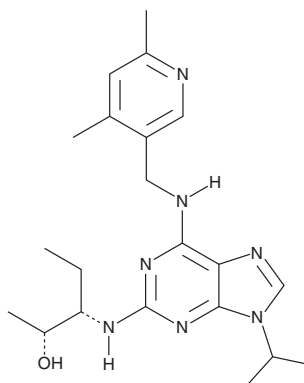
PRODUCT INFORMATION



Fadraciclib

Item No. 36119

CAS Registry No.: 1070790-89-4
Formal Name: (2R,3S)-3-[[6-[[[4,6-dimethyl-3-pyridinyl)methyl]amino]-9-(1-methylethyl)-9H-purin-2-yl]amino]-2-pentanol
Synonym: CYC065
MF: C₂₁H₃₁N₇O
FW: 397.5
Purity: ≥98%
UV/Vis.: λ_{max}: 213, 231 nm
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

Fadraciclib is supplied as a solid. A stock solution may be made by dissolving the fadraciclib in the solvent of choice, which should be purged with an inert gas. Fadraciclib is soluble in the organic solvent DMSO.

Description

Fadraciclib is an inhibitor of cyclin-dependent kinase 2 (Cdk2) and Cdk9 (IC₅₀s = 4.5 and 20.5 nM, respectively).¹ It is selective for Cdk2 and Cdk9 over Cdk1, -4, and -7 (IC₅₀s = 278, 193, and 232 nM, respectively). Fadraciclib inhibits the proliferation of COLO 205 cells (IC₅₀ = 0.31 μM), as well as inhibits proliferation in a panel of five breast cancer cell lines (IC₅₀s = <0.4 μM for all). It decreases phosphorylation of the RNA polymerase II C-terminal domain and RB, Cdk9 and Cdk2 targets, respectively, and induces apoptosis in COLO 205 cells. Fadraciclib (40 and 55 mg/kg) reduces tumor volume in an EoL-1 eosinophilic leukemia mouse xenograft model. It also inhibits tumor growth in an HL-60 mouse xenograft model when administered at a dose of 70 mg/kg.

Reference

1. Frame, S., Saladino, C., MacKay, C., *et al.* Fadraciclib (CYC065), a novel CDK inhibitor, targets key pro-survival and oncogenic pathways in cancer. *PLoS One* **15**(7), e0234103 (2020).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM