

PRODUCT INFORMATION



MK-4101

Item No. 29159

CAS Registry No.: 935273-79-3
Formal Name: 5-(3,3-difluorocyclobutyl)-3-[4-[4-methyl-5-[2-(trifluoromethyl)phenyl]-4H-1,2,4-triazol-3-yl]bicyclo[2.2.2]oct-1-yl]-1,2,4-oxadiazole

MF: C₂₄H₂₄F₅N₅O

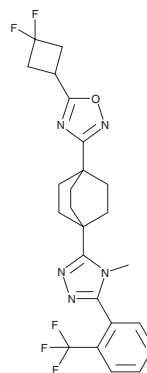
FW: 493.5

Purity: ≥98%

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

MK-4101 is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-4101 in the solvent of choice, which should be purged with an inert gas. MK-4101 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of MK-4101 in these solvents is approximately 30 mg/ml.

MK-4101 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MK-4101 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. MK-4101 has a solubility of approximately 0.11 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MK-4101 is a Smoothened (Smo) receptor antagonist.¹ It binds to human recombinant Smo expressed in HEK293T cells (IC₅₀ = 1.1 μM) and inhibits Gli1-mediated hedgehog signaling in a reporter assay (IC₅₀ = 1.5 μM). It is also an inhibitor of 11β-hydroxy steroid dehydrogenase-1. MK-4101 (40 and 80 mg/kg per day) reduces tumor growth in a murine medulloblastoma mouse allograft model, induces tumor regression when administered at a dose of 80 mg/kg twice per day, and reduces expression of the hedgehog pathway-associated transcription factor *Gli1* in tumor tissue.

Reference

1. Filocamo, G., Brunetti, M., Colaceci, F., *et al.* MK-4101, a potent inhibitor of the Hedgehog pathway, is highly active against medulloblastoma and basal cell carcinoma. *Mol. Cancer Ther.* **15(6)**, 1177-1189 (2016).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/17/2022

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