

PRODUCT INFORMATION

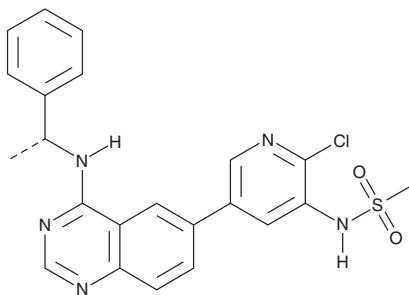


MTX-531

Item No. 43038

CAS Registry No.: 2791417-66-6
Formal Name: N-[2-chloro-5-[4-[[[(1R)-1-phenylethyl]amino]-6-quinazoliny]-3-pyridinyl]-methanesulfonamide

MF: C₂₂H₂₀ClN₅O₂S
FW: 453.9
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

MTX-531 is supplied as a solid. A stock solution may be made by dissolving the MTX-531 in the solvent of choice, which should be purged with an inert gas. MTX-531 is soluble (≥10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

MTX-531 is an EGFR antagonist and PI3K inhibitor.¹ It selectively inhibits EGFR over HER2 and HER4 (IC₅₀s = 14.7, 2,500, and >10,000 nM, respectively) and PI3Kδ, PI3Kα, and PI3Kγ over PI3Kβ (IC₅₀s = 1.1, 6.4, 8.3, and 233 nM, respectively) but also inhibits DNA-dependent protein kinase (DNA-PK; IC₅₀s = 5.4 nM). MTX-531 also induces gene expression in a reporter assay using HEK293 cells expressing PPARγ (EC₅₀ = 3.4 μM). It decreases phosphorylated levels of Akt and 4E-BP1 and induces apoptosis in CAL-33 tongue squamous cell carcinoma cells when used at concentrations ranging from 3 to 10 μM. MTX-531 (100 mg/kg per day) reduces tumor volume and increases survival in a CAL-33 mouse xenograft model.

Reference

1. Whitehead, C.E., Ziemke, E.K., Frankowski-McGregor, C., *et al.* A first-in-class selective inhibitor of EGFR and PI3K offers a single-molecule approach to targeting adaptive resistance. *Nat. Cancer* **5**(8), 1250-1266 (2024).

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

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