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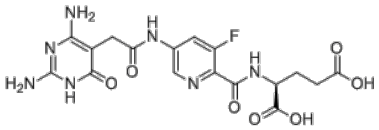
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	TH9619
Cat. No.	:	PC-72940
CAS No.	:	2379556-22-4
Molecular Formula	:	$C_{17}H_{18}FN_7O_7$
Molecular Weight	:	451.371
Target	:	Antifolate
Solubility	:	10 mM in DMSO



Biological Activity

TH9619 (TH-9619) is a potent and selective inhibitor of folate metabolism enzyme **MTHFD2** with IC50 of 47 nM.
TH9619 demonstrated efficacy on HL-60 cell viability with EC50 of 11 nM.
TH9619 potently inhibits related MTHFD proteins MTHFD2L and MTHFD1-(DC) with IC50 of 47 and 16 nM, respectively.
TH9619 displays high potency and cancer selectivity in AML models. induce thymine-less DNA damage and apoptosis, causes uracil misincorporation into DNA, sensitize cancer cells to ATR-signaling blockade.
TH9619 impairs cancer progression in vivo.
TH9619 displays high selectivity toward binding and stabilizing MTHFD2 over other common folate metabolism targets such as DHFR, thymidylate synthase (TYMS), serine hydroxymethyltransferase (SHMT) 1 and SHMT2.

References

Nadilly Bonagas, et al. ***Nat Cancer.*** 2022 Feb;3(2):156-172.

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