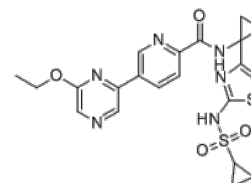


Product Name : Compound R80
Cat. No. : PC-72550
CAS No. : 2341943-12-0
Molecular Formula : C₂₁H₂₂N₆O₄S₂
Molecular Weight : 486.565
Target : Other Targets
Solubility : 10 mM in DMSO



Biological Activity

Compound R80 (CTPS1-IN-R80) is a potent, selective inhibitor of **CTPS1** (cytidine triphosphate synthase 1) with IC₅₀ of 8.4 nM in RapdFire MS assays, >100-fold selectivity over CTPS2 (IC₅₀=4.3 μM).

R80 inhibited lymphocyte proliferation (Jurkat cells IC₅₀=30 nM, human/mouse T-Cells IC₅₀=258/175 nM) by preventing expansion of CTP pools via de novo synthesis by CTPS1, consistent with the potent inhibition of purified CTPS1. CTPS1-I250T and CTPS2-T250I mutants was sufficient to invert the selectivity of R80 between the isoforms.

References

Eric M Lynch, et al. *Proc Natl Acad Sci U S A*. 2021 Oct 5;118(40):e2107968118.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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