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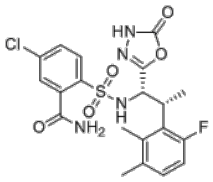
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	TAS1553
Cat. No.	:	PC-38899
CAS No.	:	2166023-31-8
Molecular Formula	:	$C_{20}H_{20}ClFN_4O_5S$
Molecular Weight	:	482.911
Target	:	Nucleoside Antimetabolite/Analog
Solubility	:	10 mM in DMSO



Biological Activity

TAS1553 is a highly potent, selective small-molecule inhibitor of **ribonucleotide reductase** (RNR) with enzyme IC50 of 54.2 nM, binds to R1 subunit with Kd of 34.9 nM, disrupts PPI between R1 and R2 subunit.
TAS1553 displays clean selectivity profile againt at least 68 proteins, such as ion channels, transporters, nuclear receptors, and G protein-coupled receptors.
TAS1553 showed antiproliferative activity against both solid and hematological human cancer cell lines with GI50 values ranged from 0.228 to 4.15 uM.
TAS1553 rapidly and reversibly abrogated the protein-protein interaction between R1 and R2 in treated cells, reduces intracellular dATP pool and induces the replication stress and apoptosis in HCC38 and MV-4-11 cells.
SLFN11 is a factor to promote apoptosis induction by TAS1553.
TAS1553 demonstrates antitumor activity in both hematologic and solid tumor models.

References

Hiroyuki Ueno, et al. ***Commun Biol.*** 2022 Jun 9;5(1):571.

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