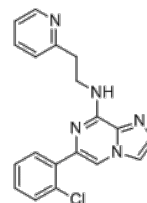


Product Name : TH6342
Cat. No. : PC-21770
CAS No. :
Molecular Formula : C₁₉H₁₆ClN₅
Molecular Weight : 349.82
Target : Nucleoside Antimetabolite/Analog
Solubility : 10 mM in DMSO



Biological Activity

TH6342 (TH-6342) is a specific small-molecule inhibitor against the dNTP triphosphohydrolase (dNTPase) **SAMHD1**, inhibits the enzymatic activities of SAMHD1 against dGTP, Cl-F-ara-ATP, and ara-CTP with IC₅₀ of 9.6, 11.0 and 5.8 μM, respectively.

TH6342 shows high selectivity against a panel of nucleotide phosphatases.

TH6342 impeded GTP-induced dimerization and thereafter activation, delayed the allosteric activation of SAMHD1.

TH6342 inhibited SAMHD1 hydrolase activity in vitro with low μM potencies and high selectivity, in a mode of inhibition that deters efficient allosteric activation of SAMHD1 without occupying (d)NTP binding pockets.

References

Si Min Zhang, et al. *iScience*. 2024 Jan 13;27(2):108907.

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

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