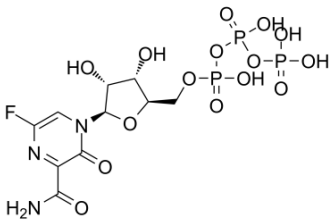
T-705RTP

Cat. No.:	HY-135803
CAS No.:	740790-94-7
Molecular Formula:	$C_{10}H_{15}FN_3O_{15}P_3$
Molecular Weight:	529.16
Target:	DNA/RNA Synthesis; Influenza Virus; SARS-CoV
Pathway:	Cell Cycle/DNA Damage; Anti-infection
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	T-705RTP is a selective and GTP-competitive **influenza virus RNA polymerase** inhibitor with an **IC_{50}** of 0.14 μM and a **K_i** of 1.52 μM. T-705RTP is the active triphosphate metabolite of T-705 and has potent anti-influenza virus activity[1][2] .
IC_{50} & Target	IC50: 0.14 μM (Influenza virus RNA polymerase)[1] Ki: 1.52 μM (Influenza virus RNA polymerase)[1]
In Vitro	T-705RTP and T-705RMP are detected in MDCK cells treated with T-705. T-705RTP inhibits influenza virus RNA polymerase activity in a dose-dependent and a GTP-competitive manner[1]. T-705RTP inhibits the incorporation of ATP and GTP in a competitive manner with K_i values of 7.72 and 1.56 μM, respectively. T-705RTP inhibits the incorporation of CTP in a mixed-type manner with a K_i value of 11.3 μM, and also inhibits the incorporation of UTP in a noncompetitive manner[2]. The incorporation of a single molecule of T-705RTP (10-1000 μM) inhibits influenza virus RNA strand extension[2].

REFERENCES

[1]. Furuta Y, et al. Mechanism of action of T-705 against influenza virus. Antimicrob Agents Chemother. 2005 Mar;49(3):981-6.

[2]. Sangawa H, et al. Mechanism of action of T-705 ribosyl triphosphate against influenza virus RNA polymerase. Antimicrob Agents Chemother. 2013 Nov;57(11):5202-8.

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