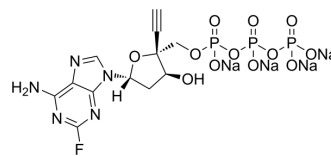


EFdA-TP tetrasodium

Cat. No.:	HY-138561B
CAS No.:	2883783-00-2
Molecular Formula:	C ₁₂ H ₁₁ FN ₅ Na ₄ O ₁₂ P ₃
Molecular Weight:	621.12
Target:	Reverse Transcriptase; DNA/RNA Synthesis; HIV
Pathway:	Anti-infection; Cell Cycle/DNA Damage
Storage:	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	EFdA-TP tetrasodium is a potent nucleoside reverse transcriptase (RT) inhibitor. EFdA-TP tetrasodium inhibits RT-catalyzed DNA synthesis as an effective immediate or delayed chain terminator (ICT or DCT). EFdA-TP tetrasodium inhibits HIV-1 RT with multiple mechanisms ^[1] . EFdA-TP (tetrasodium) is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.
IC₅₀ & Target	HIV-1
In Vitro	EFdA-TP tetrasodium (0.05-10 μM; for 15 min) inhibits RT-catalyzed DNA synthesis as an ICT or DCT ^[1] . EFdA-TP tetrasodium can block RT as a translocation-defective RT inhibitor that dramatically slows DNA synthesis, acting as a de facto immediate chain terminator. EFdA-TP tetrasodium can function as a delayed chain terminator, allowing incorporation of an additional dNTP before blocking DNA synthesis ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Martin Markowitz, et al. 4'-Ethylnyl-2-fluoro-2'-deoxyadenosine, MK-8591: a novel HIV-1 reverse transcriptase translocation inhibitor. *Curr Opin HIV AIDS*. 2018 Jul;13(4):294-299.

[2]. Eleftherios Michailidis, et al. 4'-Ethylnyl-2-fluoro-2'-deoxyadenosine (EFdA) inhibits HIV-1 reverse transcriptase with multiple mechanisms. *J Biol Chem*. 2014 Aug 29;289(35):24533-48.

Caution: Product has not been fully validated for medical applications. For research use only.

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