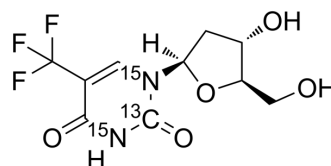


Trifluridine-¹³C,¹⁵N₂

Cat. No.:	HY-A0061S
CAS No.:	2086328-10-9
Molecular Formula:	C ₉ ¹³ CH ₁₁ F ₃ ¹⁵ N ₂ O ₅
Molecular Weight:	299.18
Target:	Thymidylate Synthase; Nucleoside Antimetabolite/Analog; HSV; Orthopoxvirus
Pathway:	Apoptosis; Cell Cycle/DNA Damage; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Trifluridine- ¹³ C, ¹⁵ N ₂ is the ¹³ C and ¹⁵ N labeled Trifluridine[1]. Trifluridine (Trifluorothymidine;5-Trifluorothymidine;TFT) is an irreversible thymidylate synthase inhibitor, and thereby suppresses DNA synthesis. Trifluridine is an antiviral agent for herpes simplex virus (HSV) infection. Trifluorothymidine also has anti-orthopoxvirus activity[2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Donald F Smee, et al. A review of compounds exhibiting anti-orthopoxvirus activity in animal models. *Antiviral Res*. 2003 Jan;57(1-2):41-52.

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

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