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Produktinformation



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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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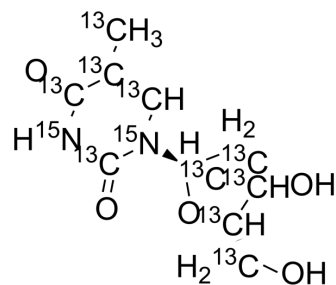
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Thymidine-¹³C₁₀, ¹⁵N₂

Cat. No.:	HY-N1150S8
CAS No.:	1821188-00-4
Molecular Formula:	¹³ C ₁₀ H ₁₄ ¹⁵ N ₂ O ₅
Molecular Weight:	254.14
Target:	DNA/RNA Synthesis; Endogenous Metabolite; Orthopoxvirus
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (196.74 mM; Need ultrasonic and warming)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.9348 mL	19.6742 mL	39.3484 mL
	5 mM		0.7870 mL	3.9348 mL	7.8697 mL
	10 mM		0.3935 mL	1.9674 mL	3.9348 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Thymidine-¹³C₁₀, ¹⁵N₂ is the ¹³C and ¹⁵N labeled Thymidine[1]. Thymidine, a specific precursor of deoxyribonucleic acid, is used as a cell synchronizing agent. Thymidine is a DNA synthesis inhibitor that can arrest cell at G1/S boundary, prior to DNA replication[2][3][4].

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]. Chen G, et al. Cell Synchronization by Double Thymidine Block. Bio Protoc. 2018 Sep 5;8(17).

[3]. FIRKET H, et al. Autoradiographic visualization of synthesis of deoxyribonucleic acid in tissue culture with tritium-labelled thymidine. Nature. 1958 Jan 24;181(4604):274-5.

[4]. FIRKET H, et al. Autoradiographic visualization of synthesis of deoxyribonucleic acid in tissue culture with tritium-labelled thymidine. Nature. 1958 Jan 24

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

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