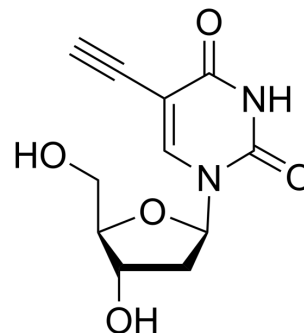


## 5-Ethynyl-2'-deoxyuridine

Cat. No.:	HY-118411
CAS No.:	61135-33-9
Molecular Formula:	C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>5</sub>
Molecular Weight:	252.22
Target:	PROTAC Linkers
Pathway:	PROTAC
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (198.24 mM; Need ultrasonic) H <sub>2</sub> O : 25 mg/mL (99.12 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div>Solvent Concentration</div>	Mass	1 mg	5 mg	10 mg
		1 mM	3.9648 mL	19.8240 mL	39.6479 mL	
		5 mM	0.7930 mL	3.9648 mL	7.9296 mL	
		10 mM	0.3965 mL	1.9824 mL	3.9648 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 4 mg/mL (15.86 mM); Clear solution; Need ultrasonic and warming and heat to 60°C					

### BIOLOGICAL ACTIVITY

Description	5-Ethynyl-2'-deoxyuridine (EdU), a thymidine analogue, is incorporated into cellular DNA during DNA replication and the subsequent reaction of EdU with a fluorescent azide in a "Click" reaction. EdU staining is a fast, sensitive and reproducible method to study cell proliferation <sup>[1]</sup> . 5-Ethynyl-2'-deoxyuridine is an alkyl chain-based PROTAC linker that can be used in the synthesis of PROTACs <sup>[2]</sup> . 5-Ethynyl-2'-deoxyuridine is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.
IC <sub>50</sub> & Target	Alkyl-Chain
In Vitro	5-Ethynyl-2'-deoxyuridine (EdU) staining is a fast, sensitive and reproducible method to study cell proliferation in the central nervous system <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The number of 5-Ethynyl-2'-deoxyuridine (EdU; a single injection of EdU intraperitoneally at a dose of 10, 20, 50, 100 or 200

mg/kg body weight) positive cells in the dentate gyrus slightly increased in a dose-dependent manner in two-month old female mice<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Two month old female mice <sup>[1]</sup>
Dosage:	10, 20, 50, 100 or 200 mg/kg
Administration:	Single injection; intraperitoneally; 4 hours after EdU injection, brains were processed for EdU staining.
Result:	EdU positive cell numbers slightly increased in a dose-dependent manner both in control and running mice.

## CUSTOMER VALIDATION

- Cell Host Microbe. 2024 Jan 11;S1931-3128(23)00510-3.
- Cell Stem Cell. 2022 Sep 1;29(9):1366-1381.e9.
- J Clin Invest. 2023 Feb 16;e162324.
- PLoS Biol. 2022 Apr 27;20(4):e3001619
- Front Endocrinol. 2023 Jan 9;13:1052487.

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## REFERENCES

[1]. An S, et al. Small-molecule PROTACs: An emerging and promising approach for the development of targeted therapy drugs. EBioMedicine. 2018 Oct;36:553-562

[2]. Chenbo Zeng, et al. Evaluation of 5-ethynyl-2'-deoxyuridine staining as a sensitive and reliable method for studying cell proliferation in the adult nervous system. Brain Res. 2010 Mar 10;1319:21-32.

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

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