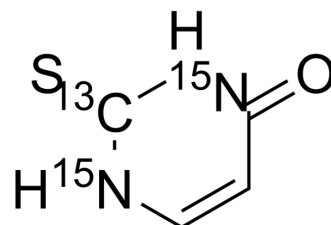


2-Thiouracil-¹³C,¹⁵N₂

Cat. No.:	HY-B0503S
Molecular Formula:	C ₃ ¹³ CH ₄ ¹⁵ N ₂ OS
Molecular Weight:	131.13
Target:	NO Synthase; Isotope-Labeled Compounds
Pathway:	Immunology/Inflammation; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	2-Thiouracil- ¹³ C, ¹⁵ N ₂ is the ¹³ C, ¹⁵ N labeled 2-Thiouracil. 2-Thiouracil (Thiouracil) is an antithyroid compound. 2-Thiouracil can function as a highly specific melanoma seeker. 2-Thiouracil is a selective inhibitor of neuronal nitric oxide synthase (nNOS) with a Ki of 20 μM.
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]. Napolitano, A., et al., Mechanism of selective incorporation of the melanoma seeker 2-thiouracil into growing melanin. *J Med Chem*, 1996. 39(26): p. 5192-201.
- [2]. Palumbo, A., et al. 2-thiouracil is a selective inhibitor of neuronal nitric oxide synthase antagonising tetrahydrobiopterin-dependent enzyme activation and dimerisation. *FEBS Lett*, 2000. 485(2-3): p. 109-12.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

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

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