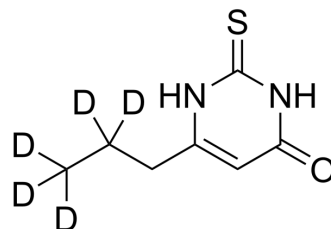


Propylthiouracil-d5

Cat. No.:	HY-B0346S
CAS No.:	1189423-94-6
Molecular Formula:	C ₇ H ₅ D ₅ N ₂ OS
Molecular Weight:	175.26
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Propylthiouracil-d5 (6-n-Propylthiouracil-d5) is the deuterium labeled Propylthiouracil. Propylthiouracil (6-Propyl-2-thiouracil) is a thyroperoxidase and 5'-deiodinase inhibitor.
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;53(2):211-216.
- [2]. Nakamura, H., et al., Comparison of methimazole and propylthiouracil in patients with hyperthyroidism caused by Graves' disease. *J Clin Endocrinol Metab*, 2007. 92(6): p. 2157-62.
- [3]. Taurog, A. and M.L. Dorris, A reexamination of the proposed inactivation of thyroid peroxidase in the rat thyroid by propylthiouracil. *Endocrinology*, 1989. 124(6): p. 3038-42.

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

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