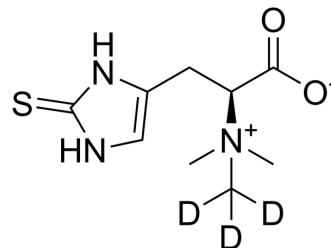


## Ergothioneine-d<sub>3</sub>

<b>Cat. No.:</b>	HY-N1914S
<b>CAS No.:</b>	1356933-89-5
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>12</sub> D <sub>3</sub> N <sub>3</sub> O <sub>2</sub> S
<b>Molecular Weight:</b>	232.32
<b>Target:</b>	Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Ergothioneine-d <sub>3</sub> is the deuterium labeled Ergothioneine. Ergothioneine, an imidazole-2-thione derivative of histidine betaine, is synthesized by certain bacteria and fungi. Ergothioneine is generally considered an antioxidant[1].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Oumari M, et al. Regeneration of ergothioneine after reaction with singlet oxygen. *Free Radic Biol Med*. 2019 Apr;134:498-504.

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

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