## **Product** Data Sheet

## DL-dithiothreitol- $d_{10}$

Cat. No.: HY-15917S

CAS No.: 302912-05-6

Molecular Formula:  $C_4D_{10}O_2S_2$ Molecular Weight: 164.31

Target: Isotope-Labeled Compounds

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	DL-dithiothreitol- $d_{10}$ is the deuterium labeled DL-dithiothreitol[1]. DL-dithiothreitol (DTT) is a reducing agent. DL-dithiothreitol forms a stable six-membered ring with an internal disulfide bond once oxidized[2].
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 <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 Feb;53(2):211-216.

[2]. Dithiothreitol, From Wikipedia

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

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