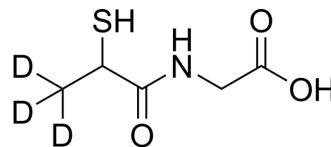


## Tiopronin-d<sub>3</sub>

Cat. No.:	HY-B0373S1
CAS No.:	1189700-74-0
Molecular Formula:	C <sub>5</sub> H <sub>6</sub> D <sub>3</sub> NO <sub>3</sub> S
Molecular Weight:	166.21
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Tiopronin-d<sub>3</sub> is the deuterium labeled Tiopronin. Tiopronin is a diffusible antioxidant, an antidote to heavy metal poisoning and a radioprotective agent. Tiopronin can control the rate of cystine precipitation and excretion and has the potential for cystinuria, rheumatoid arthritis and hepatic disorders[1][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;53(2):211-216.
- [2]. Pu Zhang, et al. Detection of tiopronin in body fluids and pharmaceutical products using red-emissive DNA-stabilized silver nanoclusters as a fluorescent probe. *Mikrochim Acta.* 2019 Aug 8;186(9):609.
- [3]. Soohwan Yum, et al. N-(2-Mercaptopropionyl)-glycine, a diffusible antioxidant, activates HIF-1 by inhibiting HIF prolyl hydroxylase-2: implication in amelioration of rat colitis by the antioxidant. *Biochem Biophys Res Commun.* 2014 Jan 17;443(3):1008-13.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA