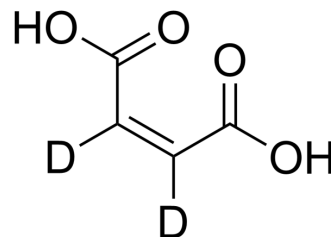


Maleic Acid-d₂

Cat. No.:	HY-Y0367S
CAS No.:	24461-33-4
Molecular Formula:	C ₄ H ₂ D ₂ O ₄
Molecular Weight:	118.08
Target:	Bacterial; Endogenous Metabolite
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Maleic Acid-d ₂ is the deuterium labeled Maleic Acid[1]. Maleic Acid is a Glutamate Decarboxylase (GAD) inhibitor of <i>E. coli</i> and <i>L. monocytogenes</i> [2][3].
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 Feb;53(2):211-216.
- [2]. Fonda ML, et al. Glutamate decarboxylase. Substrate specificity and inhibition by carboxylic acids. *Biochemistry*. 1972 Mar 28;11(7):1304-9.
- [3]. Paudyal R, et al. A novel approach in acidic disinfection through inhibition of acid resistance mechanisms Maleic acid-mediated inhibition of glutamate decarboxylase activity enhances acid sensitivity of *Listeria monocytogenes*. *Food Microbiol*. 2018 Feb;69:96-104.

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