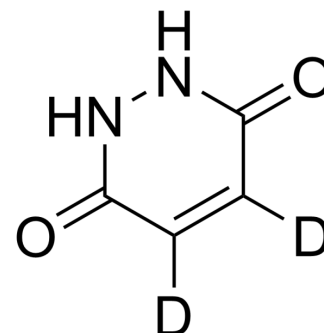


Maleic hydrazide-d₂

Cat. No.:	HY-59354S
CAS No.:	2398483-97-9
Molecular Formula:	C ₄ H ₂ D ₂ N ₂ O ₂
Molecular Weight:	114.1
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Maleic hydrazide-d ₂ is the deuterium labeled Maleic hydrazide[1]. Maleic hydrazide is extensively used as a systemic plant growth regulator and as a herbicide. Maleic hydrazide acts as an inhibitor of the synthesis of nucleic acids and proteins[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]. Venezian A, et al. The Influence of the Plant Growth Regulator Maleic Hydrazide on Egyptian Broomrape Early Developmental Stages and Its Control Efficacy in Tomato under Greenhouse and Field Conditions. *Front Plant Sci*. 2017;8:691. Published 2017 May 16.
- [3]. Swietlińska Z, et al. Cytotoxic effects of maleic hydrazide. *Mutat Res*. 197855(1):15-30.
- [4]. Yurdakok B, et al. Cytotoxic effects of etephon and maleic hydrazide in Vero, Hep2, HepG2 cells. *Drug Chem Toxicol*. 201437(4):459-465.

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

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