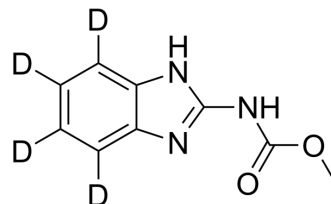


Carbendazim-d₄

Cat. No.:	HY-13582S
CAS No.:	291765-95-2
Molecular Formula:	C ₉ H ₃ D ₄ N ₃ O ₂
Molecular Weight:	195.21
Target:	Fungal; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Carbendazim-d ₄ is the deuterium labeled Carbendazim. Carbendazim is a potent and orally active broad-spectrum benzimidazole fungicide and can be acts as a pesticide for fungal diseases research, such as Seproria, Fusarium and Sclerotina[1][3]. Carbendazim is a benzimidazole (HY-Y1825) derivative with antitumor activity and used for cancer research, especially advanced solid tumors and lymphoma[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;53(2):211-216.
- [2]. Carbendazim
- [3]. Yuanxiang Jin, et al. Oral Exposure of Mice to Carbendazim Induces Hepatic Lipid Metabolism Disorder and Gut Microbiota Dysbiosis. *Toxicol Sci.* 2015 Sep;147(1):116-26
- [4]. Bilge G. Tuna, et al. Enhanced antitumor activity of carbendazim on HeLa cervical cancer cells by aptamer mediated controlled release. *RSC Advances*

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

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