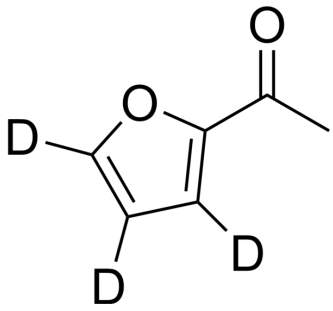
2-Acetylfuran-d_3

Cat. No.:	HY-W015912S
Molecular Formula:	$C_6H_3D_3O_2$
Molecular Weight:	113.13
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	2-Acetylfuran-d_3 is deuterated labeled Citreoviridin (HY-N6745). Citreoviridin, a toxin from Penicillium citreoviride NRRL 2579, inhibits brain synaptosomal Na^+/K^+-ATPase whereas in microsomes, both Na^+/K^+-ATPase and Mg^{2+}-ATPase activities are significantly stimulated in a dose-dependent manner[1]. Citreoviridin inhibits cell proliferation and enhances apoptosis of human umbilical vein endothelial cells[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[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wang Y, et al. Amino acid-dependent formation pathways of 2-acetylfuran and 2,5-dimethyl-4-hydroxy-3[2H]-furanone in the Maillard reaction. Food Chemistry. 2009 Jul 1; 115(1):233-237.

[2]. Banerjee R, et, al. Medicinal significance of furan derivatives: A Review . International Journal of Research in Phytochemistry and Pharmacology. 2015, 5(3):48-57.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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