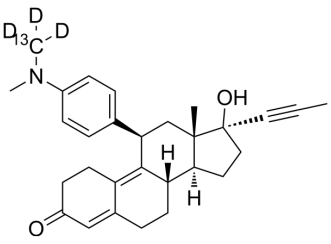
Mifepristone-$^{13}C,d_3$

Cat. No.:	HY-13683S1
Molecular Formula:	$C_{28}{}^{13}CH_{32}D_3NO_2$
Molecular Weight:	433.6
Target:	Progesterone Receptor; Glucocorticoid Receptor; Autophagy; NO Synthase; Isotope-Labeled Compounds
Pathway:	Vitamin D Related/Nuclear Receptor; Immunology/Inflammation; Autophagy; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mifepristone-$^{13}C,d_3$ is the ^{13}C- and deuterium labeled Mifepristone. Mifepristone (RU486) is a progesterone receptor (PR) and glucocorticoid receptor (GR) antagonist with IC50s of 0.2 nM and 2.6 nM in in vitro assay[1]. Mifepristone-13C,d3 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.
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[80]. 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):211-223.

[2]. Jiang W, et al. New progesterone receptor antagonists: phosphorus-containing 11beta-aryl-substituted steroids. Bioorg Med Chem. 2006 Oct 1;14(19):6726-32.

[3]. Jurado R, et al. NSC 119875 cytotoxicity is increased by mifepristone in cervical carcinoma: an in vitro and in vivo study. Oncol Rep. 2009 Nov;22(5):1237-45.

[4]. Sharrett-Field L, et al. Mifepristone Pretreatment Reduces Ethanol Withdrawal Severity In Vivo. Alcohol Clin Exp Res. 2013 Aug;37(8):1417-23.

[5]. Yuehua You, et al. Progesterone Promotes Endothelial Nitric Oxide Synthase Expression Through Enhancing Nuclear Progesterone receptor-SP1 Formation. Am J Physiol Heart Circ Physiol. 2020 Jul 3.

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