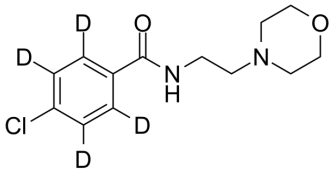
Moclobemide-d4

Cat. No.:	HY-B0534S1
Molecular Formula:	$C_{13}H_{13}D_4ClN_2O_2$
Molecular Weight:	272.76
Target:	Monoamine Oxidase
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Moclobemide-d4 is deuterium labeled Moclobemide. Moclobemide (Ro111163) is a brain-penetrant and reversible monoamine oxidase (MAO-A) inhibitor with an IC50 of 6.061 μM for hMAO-A[1].Moclobemide up-regulates proliferation of hippocampal progenitor cells in chronically stressed mice.
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]. Nafiz Öncü Can, et al. Synthesis of New Hydrazone Derivatives for MAO Enzymes Inhibitory Activity. Molecules. 2017 Aug 20;22(8):1381.

[3]. Yun-feng Li, et al. Moclobemide up-regulates proliferation of hippocampal progenitor cells in chronically stressed mice. Acta Pharmacol Sin. 2004 Nov;25(11):1408-12.

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