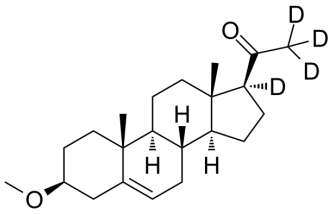
MAP4343-d4

Cat. No.:	HY-107116S
Molecular Formula:	$C_{22}H_{30}D_4O_2$
Molecular Weight:	334.53
Target:	Microtubule/Tubulin
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MAP4343-d4 is the deuterium labeled MAP4343. MAP4343 is the 3-methylether derivative of Pregnenolone. MAP4343 binds in vitro to microtubule-associated protein 2 (MAP2), stimulates the polymerization of tubulin, enhances the extension of neurites and protects neurons against neurotoxic agents[1][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;53(2):211-216.

[2]. Duchossoy Y, et, al. Treatment of experimental spinal cord injury with 3β-methoxy-pregnenolone. Brain Res. 2011 Jul 27;1403:57-66.

[3]. Fontaine-Lenoir V, et, al. Microtubule-associated protein 2 (MAP2) is a neurosteroid receptor. Proc Natl Acad Sci U S A. 2006 Mar 21;103(12):4711-6.

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