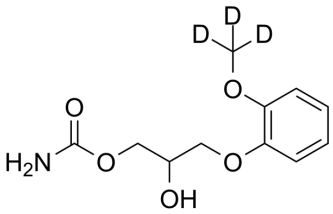
Methocarbamol-d_3

Cat. No.:	HY-B0262S1		
CAS No.:	1346600-86-9		
Molecular Formula:	$C_{11}H_{12}D_3NO_5$		
Molecular Weight:	244.26		
Target:	Sodium Channel		
Pathway:	Membrane Transporter/Ion Channel		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Methocarbamol-d_3 is the deuterium labeled Methocarbamol. Methocarbamol is an orally active central muscle relaxant and blocks muscular Nav1.4 channel. Methocarbamol reversibly affects voltage dependence of inactivation of Nav1.4 channel. Methocarbamol has the potential for muscle spasms and pain syndromes research[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]. Bruce, R.B., L.B. Turnbull, and J.H. Newman, Metabolism of methocarbamol in the rat, dog, and human. J Pharm Sci, 1971. 60(1): p. 104-6.

[3]. Sica, D.A., et al., Pharmacokinetics and protein binding of methocarbamol in renal insufficiency and normals. Eur J Clin Pharmacol, 1990. 39(2): p. 193-4.

[4]. Yaxin Zhang, et al. Methocarbamol blocks muscular Na v 1.4 channels and decreases isometric force of mouse muscles. Muscle Nerve. 2020 Oct 11.

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