Product Data Sheet

Methocarbamol-¹³C,d₃

 Cat. No.:
 HY-B0262S2

 CAS No.:
 2747917-88-8

 Molecular Formula:
 C₁₀ 13CH₁₂D₃NO₅

Molecular Weight: 245.25

Target: Sodium Channel; Isotope-Labeled Compounds

Pathway: Membrane Transporter/Ion Channel; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Methocarbamol- ¹³ C,d ₃ is the ¹³ C- and 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 ^[79] . 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]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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