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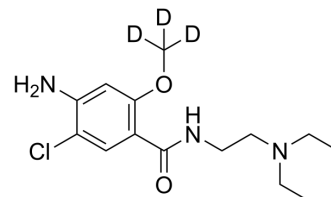
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Metoclopramide-d₃

Cat. No.:	HY-17382S
CAS No.:	1216522-89-2
Molecular Formula:	C ₁₄ H ₁₉ D ₃ ClN ₃ O ₂
Molecular Weight:	302.81
Target:	Dopamine Receptor; 5-HT Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Metoclopramide-d ₃ is deuterium labeled Metoclopramide. Metoclopramide is a potent antagonist of 5-HT ₃ and dopamine D ₂ receptor, with IC ₅₀ s of 308 nM and 483 nM, respectively. Metoclopramide can be used for the research of nausea and vomiting, gastro-oesophageal reflux, and gastroparesis[1][2].
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.
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- [3]. Edwards CR, et, al. In vivo and in vitro studies on the effect of metoclopramide on aldosterone secretion. *Clin Endocrinol (Oxf)*. 1980 Jul;13(1):45-50.
- [4]. Gomes RCT, et, al. Effects of metoclopramide on the mouse anterior pituitary during the estrous cycle. *Clinics (Sao Paulo)*. 2011;66(6):1101-4.
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Caution: Product has not been fully validated for medical applications. For research use only.

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