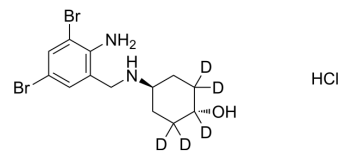


Ambroxol-d₅ hydrochloride

Cat. No.:	HY-B1039AS
CAS No.:	2741380-71-0
Molecular Formula:	C ₁₃ H ₁₄ D ₅ Br ₂ ClN ₂ O
Molecular Weight:	419.59
Target:	Glucosidase; Autophagy; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Autophagy; Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Ambroxol-d ₅ (hydrochloride) is the deuterium labeled Ambroxol hydrochloride. Ambroxol hydrochloride (NA-872 hydrochloride), an active metabolite of the proagent Bromhexine, has potent expectorant effects. Ambroxol hydrochloride is a glucocerebrosidase (GCase) chaperone and increases glucocerebrosidase activity. Ambroxol hydrochloride induces lung autophagy and has the potential for Parkinson disease and neuronopathic Gaucher disease research[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.
- [2]. Vojo Deretic, et al. Enhancement of lung levels of antibiotics by ambroxol and bromhexine. *Expert Opin Drug Metab Toxicol.* 2019 Mar;15(3):213-218.
- [3]. Anna Migdalska-Richards, et al. Ambroxol effects in glucocerebrosidase and α -synuclein transgenic mice. *Ann Neurol.* 2016 Nov;80(5):766-775.

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

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