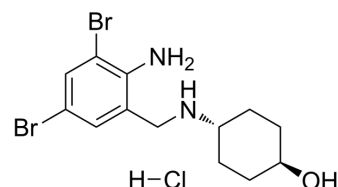


## Ambroxol hydrochloride

<b>Cat. No.:</b>	HY-B1039A
<b>CAS No.:</b>	23828-92-4
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>19</sub> Br <sub>2</sub> ClN <sub>2</sub> O
<b>Molecular Weight:</b>	414.56
<b>Target:</b>	Glucosidase; Autophagy
<b>Pathway:</b>	Metabolic Enzyme/Protease; Autophagy
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 8.33 mg/mL (20.09 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.4122 mL	12.0610 mL	24.1220 mL
	5 mM	0.4824 mL	2.4122 mL	4.8244 mL
	10 mM	0.2412 mL	1.2061 mL	2.4122 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

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<sup>[1][2]</sup>.

#### In Vivo

Ambroxol hydrochloride (NA-872 hydrochloride; 1, 3, 4, 5 mM for 12 consecutive days in drinking water) results in increased brain glucocerebrosidase activity in wild-type mice, transgenic mice expressing the heterozygous L444P mutation in the murine glucocerebrosidase 1 gene, and transgenic mice overexpressing human  $\alpha$ -synuclein<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Cell Rep. 2021 Jul 20;36(3):109404.
- Evid-Based Compl Alt. 16 Jun 2022.

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See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. 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.
- [2]. Anna Migdalska-Richards, et al. Ambroxol effects in glucocerebrosidase and  $\alpha$ -synuclein transgenic mice. *Ann Neurol*. 2016 Nov;80(5):766-775.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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