LKT Laboratories, Inc.

Ambroxol Hydrochloride

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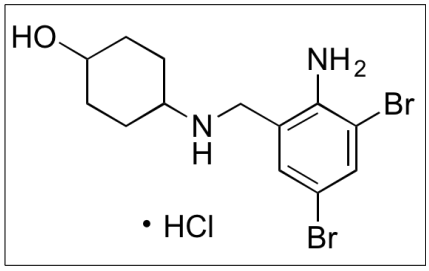
Product Information

Product ID A4806
CAS No. 23828-92-4
Chemical Name 4-[[(2-amino-3,5-dibromophenyl)methyl]amino]- cyclohexanol hydrochloride

Synonym Abramen, Ambril, Duramucal, Fluibron, Fluixol, Mucolear, Mucosolvan

Formula $C_{13}H_{18}Br_2N_2O \cdot HCl$
Formula Wt. 414.57
Melting Point 233-234.5°C (dec)
Purity ≥98%
Solubility Soluble in methanol.



Bulk quanitites available upon request

Product ID	Size
A4806	1 g
A4806	5 g
A4806	25 g

Store Temp Ambient
Ship Temp Ambient

Description Ambroxol is a bronchial expectorant that also exhibits antioxidative activity. Ambroxol stimulates the ciliary beat frequency and increases mucous secretion in the lung and trachea. In clinical settings, ambroxol increases levels of thioredoxin and thioredoxin reductase, decreasing oxidative stress and suppressing acute exacerbation of chronic obstructive pulmonary disorder (COPD). In monocytes, ambroxol inhibits LPS-induced proliferation of PDGF and prevents activation of ERK. Additionally, this compound inhibits sodium nitroprusside-induced activation of guanylate cyclase in an NO-dependent manner.

References

Huang J, Xu J, Tian L, et al. A thioredoxin reductase and/or thioredoxin system-based mechanism for antioxidant effects of ambroxol. Biochimie. 2014 Feb;97:92-103. PMID: 24103200.

Utsugi M, Dobashi K, Koga Y, et al. Ambroxol inhibits platelet-derived growth factor production in human monocytic cells. Eur J Pharmacol. 2002 Feb 1;436(1-2):47-51. PMID: 11834245.

Severina IS, Bussygina OG, Pyatakova NV, et al. Ambroxol as an inhibitor of nitric oxide-dependent activation of soluble guanylate cyclase. Eur J Pharmacol. 2000 Oct 27;407(1-2):61-4. PMID: 11050291.

Disse BG, Ziegler HW. Pharmacodynamic mechanism and therapeutic activity of ambroxol in animal experiments. Respiration. 1987;51 Suppl 1:15-22. PMID: 3602598.