

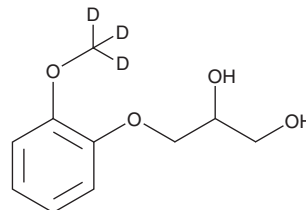
PRODUCT INFORMATION



Guaifenesin-d₃

Item No. 33368

CAS Registry No.: 1189924-85-3
Formal Name: 3-(2-(methoxy-d₃)phenoxy)propane-1,2-diol
Synonyms: MY-301-d₃, SL 90-d₃, XL90-d₃
MF: C₁₀H₁₁D₃O₄
FW: 201.2
Chemical Purity: ≥98% (Guaifenesin)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Guaifenesin-d₃ is intended for use as an internal standard for the quantification of guaifenesin (Item No. 21250) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Guaifenesin-d₃ is supplied as a solid. A stock solution may be made by dissolving the guaifenesin-d₃ in the solvent of choice, which should be purged with an inert gas. Guaifenesin-d₃ is soluble in organic solvents such as methanol and DMSO.

Description

Guaifenesin is an expectorant.¹ It inhibits production of mucin 5AC (MUC5AC), reduces mucus viscosity and elasticity, and increases the mucociliary transport rate of endogenous particles in primary human tracheobronchial epithelial cells in a concentration-dependent manner.² Guaifenesin (50 mg/kg, p.o.) increases phenol red secretion, a marker of expectorant activity, in rats.³ Formulations containing guaifenesin have been used as expectorants in the treatment of the common cold and chronic bronchitis.

References

1. Seagrave, J., Albrecht, H.H., Hill, D.B., *et al.* Effects of guaifenesin, N-acetylcysteine, and ambroxol on MUC5AC and mucociliary transport in primary differentiated human tracheal-bronchial cells. *Respir. Res.* **13**(1), 98 (2012).
2. Seagrave, J., Albrecht, H., Park, Y.S., *et al.* Effect of guaifenesin on mucin production, rheology, and mucociliary transport in differentiated human airway epithelial cells. *Exp. Lung Res.* **37**(10), 606-614 (2011).
3. Kagan, L., Lavy, E., and Hoffman, A. Effect of mode of administration on guaifenesin pharmacokinetics and expectorant action in the rat model. *Pulm. Pharmacol. Ther.* **22**(3), 260-265 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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