



# SZABO SCANDIC

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## Produktinformation



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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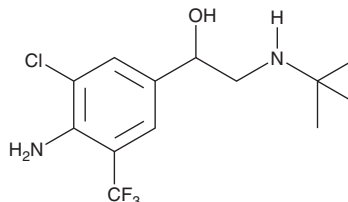
# PRODUCT INFORMATION



## Mabuterol

Item No. 23246

**CAS Registry No.:** 56341-08-3  
**Formal Name:** 4-amino-3-chloro- $\alpha$ -[[[(1,1-dimethylethyl)amino]methyl]-5-(trifluoromethyl)-benzenemethanol  
**MF:** C<sub>13</sub>H<sub>18</sub>ClF<sub>3</sub>N<sub>2</sub>O  
**FW:** 310.7  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 245, 311 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 2 years



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

### Laboratory Procedures

Mabuterol is supplied as a crystalline solid. A stock solution may be made by dissolving the mabuterol in the solvent of choice. Mabuterol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of mabuterol in these solvents is approximately 30 mg/ml.

### Description

Mabuterol is an agonist of the  $\beta_2$ -adrenergic receptor ( $\beta_2$ -AR).<sup>1-3</sup> It induces relaxation of isolated tracheal muscle in guinea pigs and inhibits bronchoconstriction in a guinea pig model of experimental asthma.<sup>2</sup> Administration of mabuterol decreases blood pressure and increases heart rate in a dose-dependent manner in rats, cats, and dogs.<sup>3</sup> These effects are reversed by the selective  $\beta_2$ -AR antagonist ICI 118551 (Item No. 15591), indicating mabuterol is acting at  $\beta_2$ -ARs.<sup>1</sup> At concentrations  $\geq$ 1  $\mu$ M, mabuterol acts as a  $\beta_1$ -AR antagonist in isolated dog right atria.

### References

1. Akahane, K., Furukawa, Y., Ogiwara, Y., *et al.*  $\beta$ -adrenoceptor blocking effects of a selective  $\beta_2$ -agonist, mabuterol, on the isolated, blood-perfused right atrium of the dog. *Br. J. Pharmacol.* **97(3)**, 709-716 (1989).
2. Murai, T., Maejima, T., and Osada, E. Pharmacological studies of mabuterol, a new selective beta 2-stimulant. I: Bronchodilating effect. *Arzneimittelforschung* **34(11A)**, 1633-1640 (1984).
3. Osada, E., Murai, T., Ishizaka, Y., *et al.* Pharmacological studies of mabuterol, a new selective beta 2-stimulant. II: Effects on the cardiovascular system and smooth muscle organs. *Arzneimittelforschung* **34(11A)**, 1641-1651 (1984).

#### 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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