

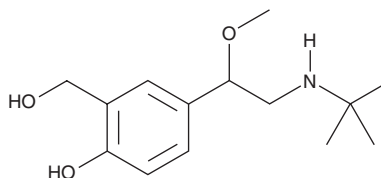
PRODUCT INFORMATION



Albuterol methyl ether

Item No. 17577

CAS Registry No.: 870076-72-5
Formal Name: 5-[2-[(1,1-dimethylethyl)amino]-1-methoxyethyl]-2-hydroxy-benzenemethanol
Synonyms: Salbutamol methyl ether
MF: C₁₄H₂₃NO₃
FW: 253.3
Purity: ≥98%
UV/Vis.: λ_{max}: 228, 277 nm
Supplied as: A crystalline 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

Albuterol methyl ether is supplied as a crystalline solid. A stock solution may be made by dissolving the albuterol methyl ether in the solvent of choice, which should be purged with an inert gas. Albuterol methyl ether is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of albuterol methyl ether in ethanol and DMF is approximately 10 mg/ml and approximately 5 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of albuterol methyl ether can be prepared by directly dissolving the crystalline solid. The solubility of albuterol methyl ether in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Salbutamol (albuterol) is a selective β₂-adrenergic partial agonist that is used as a bronchodilator.¹ Its detection and chemical analysis is of interest in various clinical and doping abuse settings.² Albuterol methyl ether is a process impurity product associated with salbutamol that may be detected in urine samples.³

References

1. Soriano-Ursúa, M.A., McNaught-Flores, D.A., Nieto-Alamilla, G., *et al.* Cell-based and in-silico studies on the high intrinsic activity of two boron-containing salbutamol derivatives at the human β₂-adrenoceptor. *Bioorg. Med. Chem.* **20(2)**, 933-941 (2012).
2. Kiss, A., Lucio, M., Fildier, A., *et al.* Doping control using high and ultra-high resolution mass spectrometry based non-targeted metabolomics - A case study of salbutamol and budesonide abuse. *PLoS One* **8(9)**, 1-13 (2013).
3. Sharma, Y.K., Agarwal, D.D., Bhure, S., *et al.* Synthesis, isolation and characterization of process-related impurities in salbutamol sulphate. *E-Journal of Chemistry* **8(4)**, 1720-1727 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/13/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM