SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

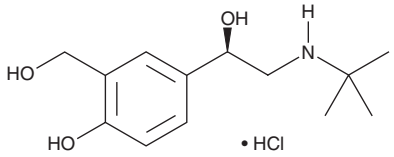
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

(R)-Salbutamol (hydrochloride)

Item No. 23991

CAS Registry No.: 50293-90-8
Formal Name: α[1]R-[[(1,1-dimethylethyl)amino]methyl]-4-hydroxy-1,3-benzenedimethanol, monohydrochloride
Synonyms: Levalbuterol, (–)-Salbutamol,
MF: $C_{13}H_{21}NO_3 \bullet HCl$
FW: 275.8
Purity: ≥98%
UV/Vis.: λ_{max}: 228, 276 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

(R)-Salbutamol (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the (R)-salbutamol (hydrochloride) in the solvent of choice. (R)-Salbutamol (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of (R)-salbutamol (hydrochloride) in these solvents is approximately 12, 20, and 25 mg/ml, respectively.

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 (R)-salbutamol (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (R)-salbutamol (hydrochloride) in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(R)-Salbutamol is an agonist of the β_2-adrenergic receptor (β_2-AR).[1] It induces relaxation of isolated guinea pig tracheal chains (EC_{50} = 16 nM). (R)-Salbutamol selectively binds to the β_2-AR over the β_1-AR (K_ds = 0.236 and 1.54 µM, respectively).[2] Nebulized (R)-salbutamol reduces transpulmonary pressure in recurrent airway obstruction-affected horses (ED_{50} = 39.7 µg/animal).[3] Formulations containing (R)-salbutamol have been used in the treatment or prevention of bronchospasm in patients with reversible obstructive airway disease.

References

1. Hawkins, C.J. and Hawkins, G.T. Relative potency of (–)- and (±)-salbutamol on guinea pig tracheal tissue. *J. Med. Chem.* **16(7)**, 856-857 (1973).
2. Penn, R.B., Frielle, T., McCullough, J.R., *et al.* Comparison of R-, S-, and RS-albuterol interaction with human β_1- and β_2-adrenergic receptors. *Clin. Rev. Allergy Immunol.* **14(1)**, 37-45 (1996).
3. Arroyo, M.G., Couëtil, L.L., Nogradi, N., *et al.* Efficacy of inhaled levalbuterol compared to albuterol in horses with recurrent airway obstruction. *J. Vet. Intern. Med.* **30(4)**, 1333-1337 (2016).

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