



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](https://www.linkedin.com/company/szaboscandic) 

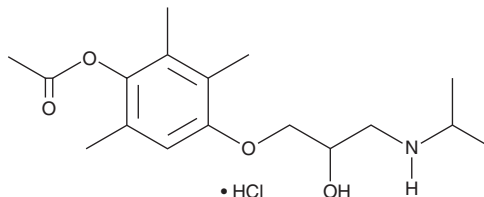
PRODUCT INFORMATION



Metipranolol (hydrochloride)

Item No. 24003

CAS Registry No.: 36592-77-5
Formal Name: 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-2,3,6-trimethyl-phenol, 1-acetate, monohydrochloride
Synonym: Trimepranol
MF: C₁₇H₂₇NO₄ • HCl
FW: 345.9
Purity: ≥98%
UV/Vis.: λ_{max}: 203 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Metipranolol (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the metipranolol (hydrochloride) in the solvent of choice. Metipranolol (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of metipranolol (hydrochloride) in ethanol is approximately 10 mg/ml and approximately 50 mg/ml in DMSO and 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 metipranolol (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of metipranolol (hydrochloride) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Metipranolol is a β -adrenergic receptor (β -AR) antagonist.¹ It binds to primary rabbit iris and ciliary body homogenates ($K_i = 34$ nM) and inhibits relaxation induced by isoproterenol (Item No. 15592) in guinea pig atrium and by fenoterol (Item No. 21293) in rat uterus ($pA_{2s} = 8.3$ and 8.4 , respectively). *In vitro*, metipranolol (100 μ M) inhibits anoxia-induced cell death in primary rat retinal cells and sodium nitroprusside-induced lipid peroxidation in rat primary retinal homogenates.^{2,3} *In vivo*, topical ocular application of metipranolol (0.3%) decreases α -chymotrypsin-induced increases in intraocular pressure (IOP) in rabbits.¹ It also inhibits the blinking response to ocular tactile stimulation in rabbits when administered topically to the eye at a dose of 0.6%. Formulations containing metipranolol have been used in the treatment of elevated IOP in patients with ocular hypertension or glaucoma.

References

1. Sugrue, M.F., Armstrong, J.M., Gautheron, P.D., *et al.* A study on the ocular and extraocular pharmacology of metipranolol. *Graefes. Arch. Clin. Exp. Ophthalmol.* **222**(3), 123-127 (1985).
2. Wood, J.P.M., Schmidt, K.-G., Melena, J., *et al.* The β -adrenoceptor antagonists metipranolol and timolol are retinal neuroprotectants: Comparison with betaxolol. *Exp. Eye Res.* **76**(4), 505-516 (2003).
3. Osborne, N.N. and Wood, J.P.M. Metipranolol blunts nitric oxide-induced lipid peroxidation and death of retinal photoreceptors: A comparison with other anti-glaucoma drugs. *Invest. Ophthalmol. Vis. Sci.* **45**(10), 3787-3795 (2004).

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, 04/22/2021

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