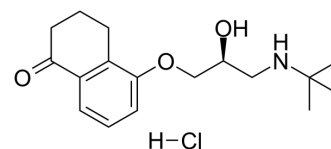


Levobunolol hydrochloride

Cat. No.:	HY-B1035
CAS No.:	27912-14-7
Molecular Formula:	C ₁₇ H ₂₆ ClNO ₃
Molecular Weight:	327.85
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 62.5 mg/mL (190.64 mM)
 H₂O : 50 mg/mL (152.51 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.0502 mL	15.2509 mL	30.5018 mL
	5 mM	0.6100 mL	3.0502 mL	6.1004 mL
	10 mM	0.3050 mL	1.5251 mL	3.0502 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 50 mg/mL (152.51 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (6.34 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (6.34 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (6.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Levobunolol (l-Bunolol) hydrochloride is a potent and nonselective β-adrenergic receptor antagonist. Levobunolol hydrochloride is an ocular hypotensive agent and lowers mean intraocular pressure (IOP). Levobunolol hydrochloride can be used for glaucoma and superior oblique myokymia (SOM) research^{[1][2][3]}.

IC₅₀ & Target

β-adrenoceptor

CUSTOMER VALIDATION

- BMC Ophthalmol. 2021 Dec 5;21(1):419.

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REFERENCES

- [1]. Mohammadi M, et al. Injectable drug depot engineered to release multiple ophthalmic therapeutic agents with precise time profiles for postoperative treatment following ocular surgery. *Acta Biomater.* 2018 Jun;73:90-102.
- [2]. Kumar, N, et al. Extended levobunolol release from Eudragit nanoparticle-laden contact lenses for glaucoma therapy. *Futur J Pharm Sci* 6, 109 (2020).
- [3]. Zhang M, et al. Superior oblique myokymia treated with levobunolol. *J AAPOS.* 2018 Feb;22(1):67-69.e2.
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Caution: Product has not been fully validated for medical applications. For research use only.

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