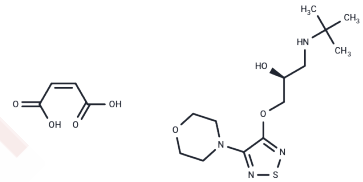


(S)-Timolol Maleate

Chemical Properties

CAS No. :	26921-17-5
Formula:	C17H28N4O7S
Molecular Weight:	432.5
Storage:	Store under nitrogen Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Timolol is a nonselective beta-adrenergic receptor blocker that is widely used for the therapy of hypertension, angina pectoris and prevention of vascular headaches.
Targets(IC50)	Adrenergic Receptor
In vivo	Timolol Maleate competes with adrenergic neurotransmitters for binding to β 1-adrenergic receptors in cardiac and vascular smooth muscle as well as β 2- receptors in bronchial and vascular smooth muscle. Timolol Maleate has a higher affinity for β 2-adrenergic receptors than for β 1-adrenergic receptors. Timolol Maleate has a relatively high lipid solubility, but does not have a significant effect on β 2-adrenergic receptors. , but does not have significant intrinsic sympathomimetic or local anesthetic activity.

Solubility Information

Solubility	DMSO: 80 mg/mL (184.97 mM), Sonication is recommended. Ethanol: 4 mg/mL (9.25 mM), Sonication is recommended. H2O: <1 mg/mL, (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (7.63 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3121 mL	11.5607 mL	23.1214 mL
5 mM	0.4624 mL	2.3121 mL	4.6243 mL
10 mM	0.2312 mL	1.1561 mL	2.3121 mL
50 mM	0.0462 mL	0.2312 mL	0.4624 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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Sun L, et al. Fractional 2940-nm Er:YAG Laser-Assisted Drug Delivery of Timolol Maleate for the Treatment of Deep Infantile Hemangioma. J Dermatolog Treat. 2020 Feb 11:1-24.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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