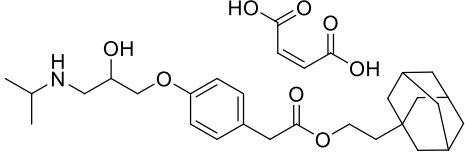


# Product data sheet



MedKoo Cat#: 573426 Name: Adaprolol maleate CAS: 121009-31-2 (maleate) Chemical Formula: C <sub>30</sub> H <sub>43</sub> NO <sub>8</sub> Molecular Weight: 545.673	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

## 1. Product description:

Adaprolol maleate is a beta-blocker and ophthalmic which may be used in the treatment of Glaucoma or other ailments of the eye. Adaprolol has marked electrophysiologic effects. Its major action was on sinus node; it prolonged the basic sinus cycle length and had significant effect on intrinsic automaticity as reflected by the prolonged corrected sinus node recovery time and sinoatrial conduction time. There was, also, direct effect on atrial function and AV nodal function. Adaprolol prolonged the effective refractory period of the His-Purkinje system and the ventricle. The potency of adaprolol's electrophysiologic effects are higher compared to other widely used beta-blockers. Adaprolol appears to be a potent beta-blocker with particularly strong antiarrhythmic effect and it would be very useful in the treatment of both supraventricular and ventricular tachyarrhythmias and ectopic beats.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
TBD	TBD	TBD

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.83 mL	9.16 mL	18.33 mL
5 mM	0.37 mL	1.83 mL	36.65 mL
10 mM	0.18 mL	0.92 mL	1.83 mL
50 mM	0.04 mL	0.18 mL	0.37 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Boder N, Elkoussi A, Zuobi K, Kovacs P. Synthesis and pharmacological activity of adaprolol enantiomers: a new soft drug for treating glaucoma. *J Ocul Pharmacol Ther.* 1996 Summer;12(2):115-22. doi: 10.1089/jop.1996.12.115. PMID: 8773927.
2. Polgar P, Bodor N. Cardiac electrophysiologic effects of adaprolol maleate, a new beta-blocker, in closed chest dogs. *Life Sci.* 1991;48(16):1519-28. doi: 10.1016/0024-3205(91)90276-h. PMID: 1673212.

## 7. Bioactivity

Biological target:

Adaprolol maleate is a beta-blocker and ophthalmic which may be used in the treatment of Glaucoma or other ailments of the eye.

In vitro activity

# Product data sheet



TBD

## In vivo activity

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The present studies demonstrate that the potent ocular hypotensive effects of adaprolol are not stereoselective. In contrast, cardiac effects could be detected after intravenous S(+) adaprolol, but not R(-) adaprolol. The studies confirm that adaprolol functions as a potent beta-adrenergic antagonist. The negligible systemic beta-blocking activity detected with ophthalmic administration of adaprolol is consistent with soft drug design.

Reference: J Ocul Pharmacol Ther. 1996 Summer;12(2):115-22. <https://pubmed.ncbi.nlm.nih.gov/8773927/>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*