

DEVELOPMENT EXTRACTION-PHOTOMETRIC METHOD OF ASSAY OF TIMOLOL MALEATE

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One of the main stages pharmacopoeias analyses is choice of method development and assay of the active substance in the medicinal product. The basis of any quantitative study is an accurate measurement. The content of the active substance is determined individually and as a medicinal product. The conclusion of the quantitative composition of the substance can be done by measuring the mass of the substance, scope solutions or gases, and optical, electrical, magnetic and other physical properties. Among the methods of quantitative determination of drugs using chemical, physical and physicochemical methods.

Timolol maleate substance and formulations based on it included many foreign pharmacopoeias. Requires foreign pharmacopoeias definition timolol maleate carried chemical or physico-chemical methods. With titrimetric methods most frequently used method of acid-base titration with the indicator or potentiometric recording the equivalence point. Among the instrumental methods for the determination of timolol maleate using liquid chromatography, absorption spectrophotometry and others.

Methods for the quantitative determination of timolol maleate extraction photometric method are practically not described.

In this regard, the aim of our work is to develop the extraction photometric methods of quantitative determination of timolol maleate. The drug belongs to the group of selective β -blockers, antiglaucoma agent. In medical practice, timolol maleate is used in the form of tablets and eye drops. In Ukraine registered eye drops under the trade name "Timolol 0.5% to 1 ml dropper tube" and "Timolol-Darnytsya solution of 2.5 mg/ml (5 mg/ml) for 5 or 10 ml bottles."

We recommended the extraction photometric method of quantitative determination of thymol maleate, which is based on the formation of ion associate of methyl orange. As a result of our studies establish conditions for quantitative determination: concentration of timolol maleate, the amount of methyl orange, pH and wavelength.

In the study of subordination solution ion associate timolol maleate with methyl orange Bouguer-Lambert-Beer found that the direct relationship observed in chloroform solution concentration of the active ingredient of $2.0 \cdot 10^{-4}$ to $2.2 \cdot 10^{-3}$ g/ml at length wave 426 nm.

Check the stability of the solution was carried out for 60 minutes. It was established that the analytical solution is stable for hours.

Thus, the results can be possible to use techniques developed by us to quantify timolol maleate in both substance and in finished dosage forms.