



## Dosage of Atenolol Tablets by Spectrophotometry with Phenol Red

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**SUMMARY.** A spectrophotometric method is proposed for the analysis of atenolol, based on its reaction with the indicator phenol red in an acetone environment. Experimental conditions for the formation of an ion pair complex peaking at 388 nm were optimized. The method is linear in the range of 1 to 5 mg/mL with a correlation coefficient ( $n = 30$ ) of 0.9968. Stoichiometry of the reaction is 1: 1. Free energy change ( $\Delta G$ ) for complex formation and stability constant ( $K_F$ ) have been calculated. Working with placebo it was found that excipients do not interfere in the analysis. The proposed method was applied to tablets provided by the Medicinal Plant of Corrientes (Plamecor), Argentina. Recoveries from 99.67 to 100.17 were achieved. Results were compared (F test and t test) favorably with those given by official methods. (HPLC - UV).

**KEY WORDS:** Atenolol, Ion pair, Phenol red, Spectrophotometry.

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