

ABSTRACT

Validation of Spectrophotometric UV-Vis for Determination of Amoxicillin in Amoxicillin and Clavulanic Potassium Simulation Mixture Tablet

Simultaneous Spectrophotometry has been used for determination amoxicillin in simulation mixture tablet of amoxicillin and clavulanic potassium. The selected wavelength was 228.0 nm and 272.0 nm. The determination provides responses for a number of chemical entities that may be distinguished from each other. Several parameters can be used for basic evaluation of linier calibration, such as correlation coefficient (r) and V_{x_0} value. The determination of amoxicillin at 228,0 nm had coefficient of regresion $y = 0,02339 x + 0,04983$, $r = 0,9992$, $V_{x_0} = 1,87\%$. And at 272,0 nm had coefficient of regression $y = 0,00291 x + 0,07168$, $r = 0,99796$, $V_{x_0} = 3,08\%$. Coefficient of Variation was used as parameter for equipment precision's were 0.14% and for method precision's were 1,66%. It is acceptable CV because less than 2%. The composition of the mixture amoxicillin and clavulanate potassium are 80%, 100%, and 120%. The result of average recovery is 123,46%. The acceptance criterion for amoxicillin recovery is 90% - 120%. it was not acceptable for the requirements.

Keyword : Spectrophotometric UV-Vis, amoxicillin, clavulanic potassium