

Abstract

An isocratic liquid chromatographic method with UV detection at 215 nm, which is suitable for the analysis of azithromycin (AZT) in bulk samples, is described. AZT is separated from its synthesis intermediates and a degradation product as well as from six unknown impurities on an XTerra RP18 column at 70 degrees C using a mobile phase consisting of acetonitrile-pH 6.5 0.2M K₂HPO₄-water (35:10:55, v/v/v) at 1.0 mL/min. The XTerra stationary phase contains methyl groups that are incorporated in the bulk structure of the material. This allows for special selectivities. Robustness is evaluated by a full factorial design experiment. The method shows good selectivity, repeatability, linearity, and sensitivity.