Magda Ali Akl, J Anal Bioanal Tech 2013, 4:5
http://dx.doi.org/10.4172/2155-9872.S1.015

OMICS Group Conferences
Accelerating Scientific Discovery

4th International Conference and Exhibition on
Analytical & Bioanalytical Techniques

October 15-17, 2013 Hampton Inn Tropicana, Las Vegas, NV, USA

Development and validation of a liquid chromatographic method for the determination of cefdinir residues on manufacturing equipment surfaces

Magda Ali Akl
Mansoura University, Egypt

Carefully designed cleaning validation and its evaluation can ensure that residues of cefdinir will not carry over and cross contaminate the subsequent product. The aim of this study was to validate simple analytical method for verification of residual cefdinir in equipments used in the production area and to confirm efficiency of cleaning procedure. The cleaning validation procedure for the equipment was done using cotton swabs moistened with the extraction solution (900 ml of water and 3.0 ml phosphoric acid and then adjusting the pH to 7.0±0.05). The HPLC method was validated on a LC system using Waters (USA) Symmetry – C18 (250 mmx4.6 mmx5 µm) at 25°C in the presence of a mobile phase composed of acetonitrile: pH 7 buffer (85-15) as at flow rate of 1.0 ml/min and an injection volume of 20 µl over the concentration range 14.5–74.5 µg mL^{-1}. UV detection was made at 254 nm. The detection limit (DL) and quantification limit (QL) were 0.7 and 2.2 µg mL^{-1}, respectively. The intra-day and inter-day precisions, expressed as relative standard deviation (R.S.D.), were below 2.00%. The recoveries were 98.68, 101 and 102.28% for three concentration levels with an average recovery of 100.65 %.

Biography

Magda Ali Akl has completed her Ph.D. at the age of 31 years from Mansoura University, Egypt and postdoctoral studies from Faculty of Science, Mansoura University, Egypt. She is Professor of Analytical Chemistry, Department of Chemistry, Faculty of Science, Mansoura, University, Mansoura, Egypt, Head of the Scientific Committee of the Mansoura Univeristy, Nanotechnology Center and member of the Administration Council of Mansoura Univeristy, Nanotechnology Center. She has published more than 35 papers in reputed journals.

magdaakl@yahoo.com