## ABSTRACT

## VALIDATION OF HPLC METHOD FOR DISSOLUTION TEST OF ASCORBIC ACID IN MULTIVITAMIN CAPSULE

## Yusnita Septiani

A high-performance liquid chromatographic (HPLC) method for dissolution test of ascorbic acid in multivitamin capsule has been developed and validated. The optimum condition of the method was achieved on Luna Phenomenex C8(2) 5µm 100Å (150 x 4.60) mm column using a mixture of tetrabutylammonium hydroxide (TBAOH) buffer at pH 6.0 and methanol (65:35) as mobile phase in isocratic system at the flow rate of 1 mL/min. Vitamin C was detected using photodiode-array (PDA) detector at 266 nm. The column temperature was set at 30°C. The retention time of ascorbic acid was 3.043 minutes. Specificity test showed that no other peaks detected at retention time of ascorbic acid. This method was specific and showed good linearity over the concentration between 22.10 and 99.72 µg/mL with correlation coefficient (r) > 0.999 and Vxo < 5%. The accuracy of the method was found to be 102.1% with precision (RSD) less than 2%. Standard solution of ascorbic acid was stable for 234 minutes. The proposed method was proved to be valid and could be used for dissolution testing of multivitamin capsule containing ascorbic acid.

Keyword: Ascorbic acid, HPLC, dissolution, validation, multivitamin