

Estimation of Pectin in Raft Forming Pharmaceuticals by High Performance Liquid Chromatography Method

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SUMMARY. A high performance liquid chromatographic (HPLC) method has been developed for the estimation of pectin in raft forming pharmaceuticals on C18 column ZORBAX ODS (1.5 cm × 4.6 mm, 5 μm) with UV detection at 378 nm. The assay condition comprised of phosphate buffer pH 7.4 and methanol (60:40 % v/v) at a flow rate of 1.25 mL/min. The method was linear over the range of 200 to 800 μg/mL. The regression value obtained from linearity curve of pectin was 0.9991. The retention time of pectin was 7.470 min. The percentage recovery of pectin was ranged from 92.1 to 98.4%. The LOD and LOQ of pectin were 3.126 and 3.785 μg/mL, respectively. The resolution of pectin was found in the range 1.10 to 1.91. The method was successfully applied to analyze the pectin concentrations in raft forming drug delivery systems.

RESUMEN. Se ha desarrollado un método de cromatografía líquida de alto rendimiento (HPLC) para la estimación de pectina en productos farmacéuticos en serie, usando una columna C18 ZORBAX ODS (1.5 cm × 4.6 mm, 5 μm) con detección UV a 378 nm. La condición del ensayo comprendía tampón fosfato pH 7,4 y metanol (60:40% v v) a un caudal de 1,25 mL/ min. El método fue lineal en el rango de 200 a 800 μg/mL. El valor de regresión obtenido de la curva de linealidad de la pectina fue de 0,9991. El tiempo de retención de pectina fue de 7,470 min. El porcentaje de recuperación de pectina varió de 92,1 a 98,4%, respectivamente. La LOD y LOQ de la pectina fueron 3,126 y 3,785 μg / mL. La resolución de la pectina se encontró en el rango de 1,10 a 1,91. El método se aplicó con éxito para analizar las concentraciones de pectina en sistemas de administración de fármacos en serie.

KEY WORDS: HPLC, pPectin, raft.

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