

Dispersive MSPD Extraction Method Coupled with HPLC for the Quantification of Vitexin in *Passiflora foetida* Formulations

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SUMMARY. A fast, simple, and efficient matrix solid phase dispersion (MSPD) coupled HPLC-UV was developed and validated for the quantification of vitexin in *Passiflora foetida* commercial herbal formulations. The MSPD extraction required only small quantities of sample and organic solvent for the analysis. The vitexin was extracted from the formulations using florosil as sorbent and 80% methanol as elutant. C₁₈ HPLC column was employed for the separation, using methanol and water, in the ratio of 20:80 v/v as the mobile phase. The column was kept at 23 ± 2 °C and the flow rate was 1 mL/min. The drug detection was performed at 340 nm. The recoveries by MSPD methods were found within the range from 97.4-101.6%. This method is very effective for extracting and quantifying of vitexin in *Passiflora foetida* formulations with high sensitivity, precision and accuracy.

RESUMEN. Se desarrolló y validó una dispersión en fase sólida de matriz rápida, simple y eficiente (MSPD) acoplada a HPLC-UV para la cuantificación de vitexina en formulaciones herbales comerciales de *Passiflora foetida*. La extracción de MSPD requirió solo pequeñas cantidades de muestra y solvente orgánico para el análisis. La vitexina se extrajo de las formulaciones usando florosil como sorbente y metanol al 80% como eluyente. Para la separación se empleó una columna de HPLC C18, empleando metanol y agua, en una proporción de 20:80 v/v como fase móvil. La columna se mantuvo a 23 ± 2 °C y el caudal fue de 1 mL/min. La detección del fármaco se realizó a 340 nm. Las recuperaciones por métodos MSPD se encontraron dentro del rango de 97,4-101,6%. Este método es muy eficaz para la extracción y cuantificación de vitexina en formulaciones de *Passiflora foetida* con alta sensibilidad, precisión y exactitud.

KEY WORDS: HPLC, MSPD, *Passiflora foetida*, validation, vitexin.

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