

ABSTRACT

Determination of Quercetin in Ethanol Extracts of Psidii Folium by TLC-Densitometry and Its Validation

Quercetin, with various biological activities, are considered as a key compounds in *Psidium guajava*. A simple and reliable TLC-densitometry method had been developed for determination of quercetin in ethanol extracts of psidii folium. TLC on silica gel plates with chloroform-acetone-formic acid (150: 33: 17) v/v as mobile phase. Qualitative analysis was performed by spraying with AlCl_3 5% solution in methanol and visualization under UV 365 nm. The mobile phase enables good resolution with R_s values were 5,4 and 4,9. Quantification by densitometry at 375 nm. Regression coefficient ($r=0,9990$), precission ($\text{CV}<3\%$), recovery (96,70%-110,05%), detection limit (0,21 μg), and quantitation limit (0,64 μg) were validated and found to be satisfactory. This method was applied to 96%, 70% and 50% ethanol extracts of psidii folium and showed quercetin content were $(2,94 \pm 0,07)\%$, $(2,96 \pm 0,06)\%$, and $(2,48 \pm 0,04)\%$, respectively.

Keywords : quercetin, TLC-densitometry, psidii folium extract, quantitative, qualitative