

**DETERMINATION OF THE SPECIFIC AND NON SPECIFIC
PARAMETERS OF *FRAXINUS GRIFFITHII* CLARKE
LEAVES EXTRACT AS THE RESULT OF
KINETIC MASERATIONS WITH 96% ETHANOL**

Willy, 2010

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ABSTRACT

Determination of the specific and non specific parameters of *Fraxinus griffithii* Clarke leaves extract has been done as the result of kinetic maceration with 96% ethanol. The specific parameter is chromatogram profile which has been determined by TLC-densitometer (Thin Layer Chromatography-densitometer) and HPLC (High Performance Liquid Chromatography) whereas the non specific are loss on drying, total ash, microbe contamination which have been determined by TPC (Total Plate Count). Based on the result of the determination above, can be concluded that the loss on drying is $15,31 \pm 0,72\%$, the total ash is $1,51 \pm 0,07\%$, and the microbe contamination is $< 1 \times 10^{-1}$ CFU. The chromatogram profile which is determined by TLC-densitometer at λ 233nm indicates five peaks with Rf 0.05, 0.19, 0.42, 0.53, 0.83 with it's own areas which are 35.92%, 34.00%, 5.77%, 20.59 and 3.72%; at λ 254nm indicates five peaks with Rf 0.05, 0.19, 0.42, 0.53, 0.83 with it's own areas which are 38.17%, 37.46%, 4.86%, 16.09%, 3.42%; at λ 278nm indicates five peaks with Rf 0.05, 0.19, 0.53, 0.70, 0.83 with it's own areas which are 32.51%, 53.60%, 8.48%, 1.56%, 3.85% . The chromatogram profile which is determined by HPLC at λ 233nm indicates seven main peaks (areas $\geq 5.26\%$) at retention time of 3.170, 4.923, 9.643, 19.427, 33.183, 34.247, and 35.143 minutes with it's own areas which are 5.94%, 15.90%, 5.90%, 25.19%, 6.36%, 8.54%, and 8.62%; at λ 254nm indicates seven main peaks (areas $\geq 4.55\%$) at retention time of 4.937, 7.007, 19.457, 33.047, 34.180, 35.193, and 35.887 minutes with it's own areas which are 17.41%, 12.44%, 17.27%, 5.11%, 9.65%, 5.28%, and 9.73%; at λ 278nm indicates nine main peaks (areas $\geq 3.45\%$) at retention time of 3.017, 4.870, 6.960, 15.763, 21.327, 34.020, 35.023, 37.290, and 40.070 minutes with it's own areas which are 5.09%, 23.34%, 6.50%, 5.96%, 3.77%, 3.47%, 20.48%, 6.55%, and 3.65%.

Keywords: *Fraxinus griffithii* Clarke, loss on drying, total ash, microbe contamination, TLC-densitometer's chromatogram profile, HPLC's chromatogram profile

**PENENTUAN PARAMETER SPESIFIK DAN NON SPESIFIK
EKSTRAK ETANOL 96% DAUN *Fraxinus griffithii* Clarke
HASIL MASERASI KINETIK**

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ABSTRAK

Telah dilakukan penentuan parameter spesifik dan non spesifik ekstrak etanol 96% daun *Fraxinus griffithii* Clarke hasil maserasi kinetik. Parameter spesifik yang ditentukan meliputi pola kromatogram dengan KLT-densitometer dan KCKT (Kromatografi Cair Kinerja Tinggi), sedangkan parameter non spesifik meliputi susut pengeringan, kadar abu total dan cemaran mikroba dengan ALT (Angka Lempeng Total). Dari hasil penelitian, dapat disimpulkan susut pengeringan sebesar $15,31 \pm 0,72\%$, kadar abu total $1,51 \pm 0,07\%$, dan cemaran mikroba $< 1 \times 10^{-1}$ CFU. Pola kromatogram KLT-densitometer pada λ 233nm menunjukkan adanya lima puncak dengan Rf 0,05; 0,19; 0,42; 0,53; 0,83 dengan area masing-masing 35,92%; 34,00%; 5,77%; 20,59 dan 3,72%, pada λ 254nm menunjukkan adanya lima puncak dengan Rf 0,05; 0,19; 0,42; 0,53; 0,83 dengan area masing-masing 38,17%; 37,46%; 4,86%; 16,09%; 3,42%, & pada λ 278nm menunjukkan adanya lima puncak dengan Rf 0,05; 0,19; 0,53; 0,70; 0,83 dengan area masing-masing 32,51%; 53,60%; 8,48%; 1,56%; 3,85%. Pola kromatogram KCKT pada λ 233nm menunjukkan adanya tujuh puncak utama (area $\geq 5,26\%$) pada waktu retensi 3,170; 4,923; 9,643; 19,427; 33,183; 34,247; 35,143 menit, dengan area masing-masing sebesar 5,94%; 15,90%; 5,90%; 25,19%; 6,36%; 8,54%; 8,62%, pada λ 254nm menunjukkan adanya tujuh puncak utama (area $\geq 4,55\%$) pada waktu retensi 4,937; 7,007; 19,457; 33,047; 34,180; 35,193; 35,887 menit, dengan area masing-masing sebesar 17,41%; 12,44%; 17,27%; 5,11%; 9,65%; 5,28%; 9,73%, & pada λ 278nm menunjukkan adanya sembilan puncak utama (area $\geq 3,45\%$) pada waktu retensi 3,017; 4,870; 6,960; 15,763; 21,327; 34,020; 35,023; 37,290; 40,070 menit, dengan area masing-masing sebesar 5,09%; 23,34%; 6,50%; 5,96%; 3,77%; 3,47%; 20,48%; 6,55%; 3,65%.

Kata Kunci: Tiken, kadar abu total, susut pengeringan, angka lempeng total, profil KLT-densitometri, profil KCKT