[abstract] FINGER PRINT STUDY OF Leucaena leucocephala L. LEAVES FOR STANDARDIZING TRADITIONAL MEDICINE EXTRACT

By: Nurtilawati\textsuperscript{1}, Waty TD\textsuperscript{1}, Murhandini S\textsuperscript{1}, Rahayu WP\textsuperscript{1}

\textsuperscript{1}Research Center for Drug and Food, National Agency for Drug and Food Control
\textsuperscript{2}Department of Food Science and Technology, Bogor Agricultural University

\textit{Leucaena leucocephala} L. leaves are empirically used as a traditional medicine. To ensure the quality of its extract, study of finger print or chromatogram profile is needed. In this research, the finger print study was carried out by TLC (Thin Layer Chromatography) scanner (366 nm) and HPLC. Eluted extract with n-hexane: ethyl acetate: methanol (60:30:10 v/v/v) showed the specific retention time at 0.50 for n-hexane extract, at 0.04, 0.16, 0.34, 0.37,
0.43 and 0.59 for chloroform extract, and at 0.6, 0.36, 0.44, 0.60, 0.71 and 0.76 for ethyl acetate extract. Using HPLC with UV-Vis detector at λ 366 nm and mobile phase of acetonitrile:H₃PO₄ 0.5% (32:68 v/v) showed some compounds absorption and peak intensities at retention time: 2.58 and 3.72 minutes for ethyl acetate extract, and Ethanol extract performed the retention time at 2.60, 3.07 and 3.71 minutes. In conclusion, the specific retention time from the ethyl acetate extract can be used as fingerprint for standardization of traditional medicine extract containing *Leucaena leucocephala* L. leaves.

Keywords: *Leucaena leucocephala* L. leaves, TLC scanner, HPLC, finger print, retention factor and retention time