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Antioxidant Activity in Extract of Mustard leaf and their *Kimchi* on 1,1-Diphenyl-2- Picrylhydrazyl(DPPH)Radical

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The antioxidant activity of mustard leaf and mustard leaf *Kimchi* were determined by the radical scavenging effect on 1,1-diphenyl-2- picrylhydrazyl (DPPH) radical. The fraction of freezing dried mustard, fermented mustard leaf *Kimchi* for 0 days and fermented mustard leaf *Kimchi* for 0 days and fermented mustard leaf *Kimchi* at 15°C for 5 days were screened for the scavenging effects against total free radical formation by using DPPH assay. The study for above 3 samples, mustard leaf, mustard leaf *kimchi* for 0 days and fermented mustard leaf *kimchi* at 15°C for 5days, and done and hexane, CH₂Cl₂, EtOAc, BuOH and H₂O were used in order to extract their effective components. The antioxidant activity of EtOAc and n-BuOH soluble fraction from mustard leaf and mustard leaf *kimchi* for 0 day were measured strongly than the others. During fermentation at 15°C for 5 days. The antioicidant activity was changed. CH₂Cl₂ and EtOAc soluble fraction showed more potent radical scavenger effects than the others. The difference of results from those were to the various supplements and fermentation process. The fraction of mustard leaf, 0day-fermented mustard leaf kimchi and 5day-fermented mustard leaf kimchi were screened for the scowenging effects against total free radical formation by using DPPH assay. The order of the effect at IC₅₀ was EtOAc fr.>CH₂Cl₂ fr.> hexane fr.>BuOH fr.>H₂O fr. of mustard leaf. The order of the autoxidation inhibitory effect at linoleic acid was EtOAc fr.>hexane fr.>CH₂Cl₂ fr.>BuOH

fr.>MeOH extract>H₂O fr. of mustard leaf.The order of the effect of mustard leaf kimchi at IC₅₀ was EtOAc fr.>CH₂Cl₂ fr.>hexane fr.>BuOH fr.>MeOH extract>H₂O fr

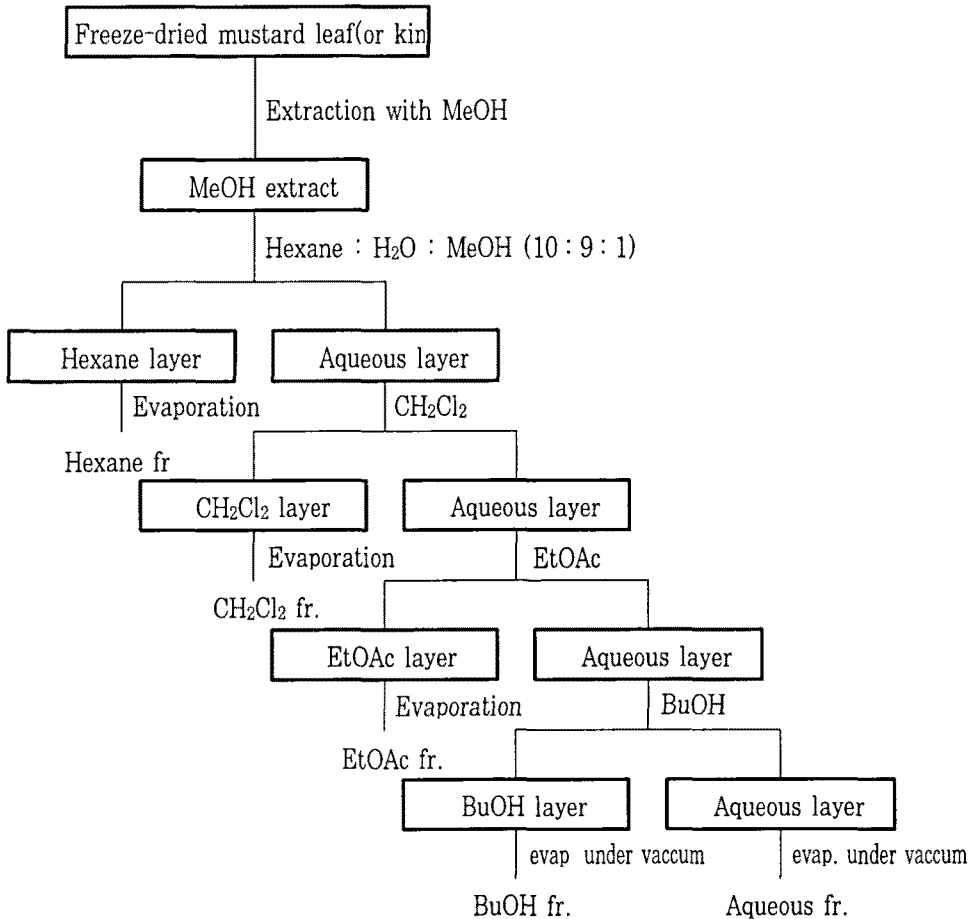


Fig. 1. Flow chart for extraction and fractionation of freeze-dried raw mustard leaf and kimchi.

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