

Anti-hypertensive effects of Alcalase extract and oligomer of *Capsosiphon fulvescens* on Spontaneously Hypertensive Rat (SHR)

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The hydrolysates prepared with various enzyme digestion of *Capsosiphon fulvescens* were used to measure the inhibitory effects against angiotensin I converting enzyme (ACE). The maximum ACE inhibitory activity was observed using Alcalase hydrolysis (72.9%). We separated using ultrafiltration (MWCO; 2 kDa) system in order to increase separation yield. The ACE inhibitory activity of oligomer (below 2 kDa fraction) with ultrafiltration system was 80.1%. The antihypertensive effects of Alcalase extract and UF 2 kDa fraction of *C. fulvescens* were investigated in the spontaneously hypertensive rats (SHR). SHR aged 6 weeks were fed for 4 weeks either with Alcalase extract (25, 50, 100, 150 mg/kg per day) or UF 2 kDa fraction (25, 50, 100, 150 mg/kg per day) orally. Oral administration of Alcalase extract and UF 2 kDa fraction was significantly reduced systolic blood pressure. Systolic blood pressure was significantly decreased in the group (150 mg/kg) fed Alcalase extract (35 mmHg) and UF 2 kDa fraction (40 mmHg) compared to the control group. Body weight gain, food intake and food efficiency ratios in all groups were not changed significantly.