

**Antioxidant and Anticancer activities of enzyme hydrolysate from *Capsosiphon fulvescens***

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The antioxidant and anticancer activities of enzyme (Celluclast, Viscozyme, Lysing enzyme, Pectinex, AMG, Termamyl, Neutrase, Flavourzyme and Alcalase; Novozyme, Denmark) hydrolysate from *Capsosiphon fulvescens*. A 100 mg of *C. fulvescens* was homogenized with 100mL of Buffer, and then 100ul enzyme solution was mixed. The enzymatic hydrolysis were performed for 12h at 50°C. Also after hydrolysis the hydrolysate were boiled for 15 min at 100°C to inactive the enzyme. Anticancer cells line (HeLa, HCC116 and MKN45) were maintained in RPMI 1640 medium containing 10% heat inactivated fetal bovine serum supplemented with penicillin (100 U/ml) and streptomycin (100 µg/ml) at 37°C under 5% CO<sub>2</sub> in the air. The viscozyme hydrolysate from *C. fulvescens* having about 50% DPPH scavenging activity. Also Alcalase hydrolysate having around 70% hydroxyl radical scavenging activity. HeLa, HCC116 and MKN45 cells exhibited the highest inhibitory effect at 2mg/ml where the Neutrase hydrolysate was 60%, 50% and 54%, respectively. *C. fulvescens* have been shown the antioxidant and anticancer activities, and that it is expected to be developed as functional food for preventing cancer.