Effect of Enzymatic Hydrolysis Time on Antioxidant Activity of Protein Hydrolysates from Sea Cucumber (Holothuria scabra)

ABSTRACT

In the present study, enzymatic hydrolysis was conducted to produce protein hydrolysate from sea cucumber (Holothuria scabra). Protein hydrolysates were successfully produced from sea cucumber body wall using alcalase at different hydrolysis time (30 to 300 min). The molecular weight distribution of sea cucumber protein hydrolysates (SCPHs) ranges from 1 to 14.2 kDa, as determined by the tricine SDS-PAGE profile. The highest value of radical-scavenging activity of 62.15% was obtained after 30 minutes of hydrolysis. The findings provide useful information concerning sea cucumber protein hydrolysates for wide range of applications, including food and pharmaceutical products.