

In Vitro Antioxidant Activity of Beef Lung Protein Hydrolysates

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ABSTRACT : The objective of this research was to prepare beef lung protein hydrolysates with pepsin and to measure their antioxidant activity. Materials used in this research were beef lung protein concentrate and pepsin. Beef lung protein hydrolysates were produced by enzymatic hydrolysis using pepsin. Antioxidant activity assay of beef lung protein hydrolysates was conducted using DPPH and TBA tests. The result obtained was beef lung used has 19.07% protein. Protein in the protein concentrate was 85.13%. Beef lung protein concentrate has a water binding activity as 2.05 ml/g, oil absorption 5.86 ml/g, foam capacity 49.4% with foam stability 55 min. Antioxidant activity of beef lung protein hydrolysates with TBA method ranged from 24.18-64.23 umol/kg. Radical scavenging activity with DPPH ranged from 9.52-39.48%. It could be concluded that hydrolysis with pepsin can produce beef lung protein hydrolysates with the antioxidant activity.

Keywords: Protein hydrolysates, Beef lung, Antioxidant, Radical scavenging activity.