马铃薯渣蛋白抗氧化肽的酶法制备　Enzymatic Preparation of Anti-oxidation Peptide from Potato Pulp

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关键词：　马铃薯渣 抗氧化肽 酶解 DPPH自由基清除率

摘　要：　以马铃薯渣为原料，采用酶法将薯渣中的蛋白转化为具有抗氧化活性的多肽。以酶解液对DPPH自由基清除率为酶解效果评价指标，从木瓜蛋白酶、风味蛋白酶、中性蛋白酶、碱性蛋白酶、胰蛋白酶、胃蛋白酶等6种商业蛋白酶中筛选出胰蛋白酶为最佳水解用酶。通过优化试验，得出薯渣蛋白最佳酶解条件为：底物质量浓度　4g/（100mL）、加酶量7%、pH值8.0、料液温度50℃、酶解时间90　min。酶解液稀释20倍后对DPPH自由基的清除率为72%，酶解液清除DPPH自由基的EC50值为0.155g/（100mL）。　Protease screening was studied to prepare potato antioxidant peptide using the enzymolysis method. With potato dregs as the raw material and the scavenging rate of hydrolysate to the DPPH radical as an index, neutral protease was screened out from the following six kinds of protease: papain, flavor protease, neutral protease, alkaline protease, trypsin and pepsin. The optimum hydrolysis conditions obtained by the experiments were substrate concentration 4 g/(100mL), 7% enzyme-substrate ratio, pH value 8.0, 50° C and 90　min reaction time. After being diluted 20 times, the scavenging rate of hydrolysate liquid to the DPPH radical reached 72%. The EC50　value of hydrolysate scavenging the DPPH radical was 0.155 g/(100mL).

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