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Extraction, characterization and antioxidant activities of pumpkin polysaccharide

Ling Chen, Gangliang Huang*

Active Carbohydrate Research Institute, Chongqing Key Laboratory of Inorganic Functional Materials, Chongqing Normal University, Chongqing, 401331, China

E-mail: huangdoctor226@163.com

Abstract: Extraction and antioxidant activities of polysaccharide from pumpkin were discussed. The crude polysaccharide was extracted with the hot water. It showed that the calcium chloride (CaCl_2) method was ideal for deproteinization. The pumpkin polysaccharide was linked by the α/β -glycosidic bond, and it might contain acetyl groups. Pumpkin polysaccharide was heteropolysaccharide composed of six monosaccharides. In addition, it indicated that pumpkin polysaccharide exhibited good antioxidant activities.

Key words: pumpkin polysaccharide, extraction, characterization, antioxidant activities

1. Introduction

Sugar can not only be used as an energy resource or structural material, but also a part of the polysaccharides can participate in the metabolism and physiological regulation of cells, resulting in a variety of biological functions. At present, one of the research focuses on functional factors of health foods is the health care functions of active polysaccharides. In recent years, the health functions of polysaccharides have mainly been reported to include anti-tumor [1], lipid-lowering [2], anti-viral [3],

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