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[1]任顺成,王鹏,马宇翔,等.常见食用豆类提取液抗氧化特性研究[J].大豆科学,2009,28(06):1081-1084.  
[doi:10.11861/j.issn.1000-9841.2009.06.1081]  
REN Shun-cheng,WANG Peng,MA Yu-xiang,et al.Antioxidant Activities of Common Edible Bean Extract[J].Soybean Science,2009,28(06):1081-1084.[doi:10.11861/j.issn.1000-9841.2009.06.1081]

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## 常见食用豆类提取液抗氧化特性研究

《大豆科学》 [ISSN:1000-9841 /CN:23-1227/S ] 卷: 第28卷 期数: 2009年06期 页码: 1081-1084 栏目:  
出版日期: 2009-12-25

Title: Antioxidant Activities of Common Edible Bean Extract

文章编号: 1000-9841(2009)06-1081-04

作者: 任顺成 (KeySearch.aspx?type=Name&Sel=任顺成); 王鹏 (KeySearch.aspx?type=Name&Sel=王鹏); 马宇翔 (KeySearch.aspx?type=Name&Sel=马宇翔); 李翔 (KeySearch.aspx?type=Name&Sel=李翔)  
河南工业大学 粮油食品学院, 河南 郑州 450052

Author(s): REN Shun-cheng (KeySearch.aspx?type=Name&Sel=REN Shun-cheng); WANG Peng (KeySearch.aspx?type=Name&Sel=WANG Peng); MA Yu-xiang (KeySearch.aspx?type=Name&Sel=MA Yu-xiang); LI Xiang (KeySearch.aspx?type=Name&Sel=LI Xiang)

School of Food Science and Technology, Henan University of Technology, Zhengzhou 450052, Henan, China

关键词: 食用豆类 (KeySearch.aspx?type=Keyword&Sel=食用豆类); 提取液 (KeySearch.aspx?type=Keyword&Sel=提取液); 抗氧化 (KeySearch.aspx?type=Keyword&Sel=抗氧化); 自由基 (KeySearch.aspx?type=Keyword&Sel=自由基)

Keywords: Edible beans (KeySearch.aspx?type=Keyword&Sel=Edible beans); Extract (KeySearch.aspx?type=Keyword&Sel=Extract); Antioxidative activity (KeySearch.aspx?type=Keyword&Sel=Antioxidative activity); Free radical (KeySearch.aspx?type=Keyword&Sel=Free radical)

分类号: TS210.4

DOI: 10.11861/j.issn.1000-9841.2009.06.1081 (http://dx.doi.org/10.11861/j.issn.1000-9841.2009.06.1081)

文献标志码: A

摘要: 以大豆(黄豆)、绿大豆、黑大豆、黑小豆、蚕豆、绿豆、赤豆、刀豆、芸豆、饭豆、麻豌豆、花豇豆、豌豆、小扁豆、鹰嘴豆等为原料,采用清除[DPPH]自由基和猪油体系的抗氧化试验来测定其抗氧化特性,为食用豆类功能特性的开发利用提供参考。结果表明:刀豆、黑小豆、花豇豆清除[DPPH]自由基的能力明显强于其他豆类,鹰嘴豆、绿大豆、黄大豆清除自由基能力较弱。刀豆、芸豆、饭豆的提取液能显著延长猪油氧化的诱导时间,表现出很强的抗猪油氧化能力,赤豆、蚕豆、花豇豆的抗猪油氧化能力则相对较弱。

Abstract: In this paper, taking the soybean (*Glycine max*), green soybean (*Glycine max*), black soybean (*Glycine max*), broad bean (*Vicia faba*), mung bean (*Vigna radiata*), adzuki bean (*Vigna angularis*), sword bean (*Canavalia gladiata*), kidney bean (*Phaseolus vulgaris*), rice bean (*Vigna umbellata*), rough cowpea (*Vigna unguiculata*), mixed coloured cowpea (*Vigna unguiculata*), pea (*Vicia sepium*), lentil (*Polygala tatarinowii*), chickpea (*Cicer arietinum*) as materials, their antioxidant activities were studied by scavenging [DPPH] radical method and antioxidant abilities in lard, which will provide the reference for the development and utilization of functional properties of edible beans. The results showed that extract from sword bean, black bean and mixed colored cowpea had significantly stronger capability of scavenging [DPPH] radical than other beans, and the ability of chickpea, green soybean and soybean were weaker. The extract from sword bean, kidney bean and rice bean could evidently prolong induction time of lard antioxidation, which showed that they had stronger ability of retarding lard to be oxidized. The lard antioxidant activities of extract from red adzuki bean, broad bean and mixed colored cowpea were weaker. Results suggest that edible beans had different antioxidant activities.

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备注/Memo 基金项目: 河南工业大学博士基金资助项目(150164)。

第一作者简介: 任顺成(1963-), 男, 副教授, 博士, 研究方向为天然活性成分及其功能评价。E-mail: scren@163.com。

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更新日期/Last Update: 2014-09-12

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