Accepted Manuscript

Antioxidant, anti-hyperlipidemia and hepatic protection of enzyme-assisted Morehella esculenta polysaccharide

Yuhan Dong, Yanran Qi, Min Liu, Xinling Song, Chen Zhang, Xun Jiao, Wenshuai Wang, Jianjun Zhang, Le Jia

PII: S0141-8130(18)32931-3

DOI: doi:10.1016/j.ijbiomac.2018.09.134

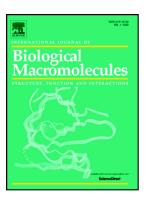
Reference: BIOMAC 10569

To appear in: International Journal of Biological Macromolecules

Received date: 14 June 2018
Revised date: 22 August 2018
Accepted date: 22 September 2018

Please cite this article as: Yuhan Dong, Yanran Qi, Min Liu, Xinling Song, Chen Zhang, Xun Jiao, Wenshuai Wang, Jianjun Zhang, Le Jia, Antioxidant, anti-hyperlipidemia and hepatic protection of enzyme-assisted Morehella esculenta polysaccharide. Biomac (2018), doi:10.1016/j.ijbiomac.2018.09.134

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Antioxidant, anti-hyperlipidemia and hepatic protection of enzyme-assisted *Morehella esculenta* polysaccharide

Yuhan Dong ¹, Yanran Qi ³, Min Liu ¹, Xinling Song ¹, Chen Zhang ¹, Xun Jiao ², Wenshuai Wang ¹, Jianjun Zhang ¹, Le Jia^{*}

¹ College of Life Science, Shandong Agricultural University, Taian 271018, PR China

² College of Food Science and Engineering, Shandong Agricultural University, Taian 271018, PR

China

³ Laboratory of Food Science and Technology, Jiangnan University, Wuxi 214122, PR China

Abstract

The aims of this work were to investigate the antioxidant, anti-hyperlipidemia and hepatic protection of *Morehella esculenta* polysaccharide (MPS) from fruiting body and its enzyme-assisted MPS (EnMPS). The *in vitro* scavenging rates of EnMPS at 600 mg/L on superoxide, hydroxyl and 1,1-diphenyl-2-pyrazole hydrazide (DPPH) radicals were 76.92 ± 2.61%, 66.74 ± 2.56% and 75.78 ± 2.4%, higher than those of MPS, respectively. Animals experiments showed that the EnMPS exhibited superior abilities of reducing hepatic lipid levels by monitoring the serum enzyme activities (ALP, ALT, ALB and AST) and serum lipid levels (CK, TC, TG, HDL-C, LDL-C and LDH), enhancing the hepatic antioxidant enzymes (FFA, SOD, CAT and T-AOC) and decreasing the lipid peroxidation (MDA and MPO). The results suggested that the EnMPS could be used as a powerful natural medicine for lowering blood lipids,

^{*} Corresponding author. E-mail address: jiale0525@163.com (L. Jia).

Download English Version:

https://daneshyari.com/en/article/11026049

Download Persian Version:

https://daneshyari.com/article/11026049

<u>Daneshyari.com</u>