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# 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).