

Hepatoprotective activity of water extracts from chaga medicinal mushroom, *Inonotus obliquus* (Higher basidiomycetes) against tert-butyl hydroperoxide–induced oxidative liver injury in primary cultured rat hepatocytes

Ki Bae Hong, Dong Ouk Noh, Yooheon Park, [Hyung Joo Suh](#)

- [Department of Public Health Sciences](#)

Research output: Contribution to journal › Article › peer-review

[12](#)Citations (Scopus)

- [Overview](#)
- [Fingerprint](#)

Abstract

We examined the hepatoprotective activity of *Inonotus obliquus* water extract (IO-W) against tertbutyl hydroperoxide (t-BHP)–induced oxidative liver injury in the primary cultured rat hepatocyte. The 50% radical scavenging concentrations (SC_{50s}) of IO-W for radical-scavenging activity against 2,2'-azino-bis-(3-ethylbenzothiazoline- 6-sulfonic acid) (ABTS) and 1,1-diphenyl-2-picryl-hydrazyl (DPPH) were 5.19 mg/mL and 0.39 mg/mL, respectively. IO-W pretreatment to the primary cultured hepatocytes significantly ($p < 0.001$) (100 µg/mL). In conclusion, this study demonstrates that IO-W exhibited hepatoprotective activity against t-BHP–induced oxidative liver injury in the primary cultured hepatocyte probably via its abilities of quenching free radicals, inhibiting the leakage of ALT, AST, and LDH, and decreasing MDA formation.

Original language	English
Pages (from-to)	1069-1076
Number of pages	8
Journal	International Journal of Medicinal Mushrooms
Volume	17
Issue number	11
Publication status	Published - 2015