

## Inhibitory Activity of Wild-Simulated Ginseng against Non-Alcoholic Fatty Liver Disease in HepG-2 Cells

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In this study, we investigated in vitro inhibitory activity of wild-simulated ginseng (WSG) against non-alcoholic fatty liver disease using HepG-2 cells. T0901317 treatment increased the lipid accumulation in HepG-2 cells, but WSG treatment inhibited T0901317-mediated lipid accumulation. In addition, WSG downregulated T0901317-mediated expression of SREBP-1c, ACC, FAS and SCD-1 protein. In addition, WSG increased the phosphorylation level of LKB1 and AMPK. Compound C treatment blocked WSG-mediated downregulation of SREBP-1c protein. In conclusion, WSG is considered to inhibit the accumulation of lipids and triglycerides in HepG-2 cells by inducing the activation of LKB1 and AMPK successively, thereby reducing the expression of FAS, ACC, and SCD-1 through suppression of SREBP-1c expression.

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