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Effect of Solvent Extraction on the Anti-complementary Activities of the Green and Ripe *Cucurbita moschata* Duch

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Edible part of *Cucurbita moschata* Duch, which is commonly used as a Korean traditional medicine as well as a popular food source, had been studied to isolate anti-complementary substances. Extracts of *Cucurbita moschata* Duch showed significant anti-complementary activities on the classical pathway of the complement system. Especially, the ripe *Cucurbita moschata* Duch had more activity than that of the green one in terms of the overall anti-complementary activity. Among the extracts of various organic solvents of the ripe *Cucurbita moschata* Duch, chloroform and ethylacetate extracts, which are non-polar solvent extracts, showed the strongest activities. These results suggest that the major difference in the solvent extraction for the anti-complementary substances depends on the change in the chemical composition such as the fatty acid with the degree of ripening.

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Effects of Cell Cultured Siberian Ginseng Extracts on Serum Lipid Levels and Enzyme Activities of Rats Administered with Ethanol Chronically

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The levels of γ -aminobutyric acid (GABA) in cell-cultured Siberian ginseng and the effects of the ginseng extracts on serum lipid levels and enzyme activities of rats administered with ethanol chronically were investigated. The GABA levels of cell-cultured Siberian ginseng with torpedo shape, 1,531 nmol/g fresh weight, were 35.4 % of total free amino acids, whereas the GABA levels of the Siberian ginseng grown to young plantlet, 32 nmol/g fresh weight, were only 2.2% of total free amino acids. To investigate the effects of the ginseng extracts, Sprague-Dawley male rats were fed with either AIN-76 diet (control), control diet plus ethanol, control diet with the ginseng extracts plus ethanol for 30 days. The extract from the cell-cultured Siberian ginseng with torpedo shape decreased serum total cholesterol, triglyceride, LDL-cholesterol and GOT levels significantly that were increased by the chronic ethanol administration. These data suggest that cell-cultured Siberian ginseng is effective on the recovery of chronic alcohol-related symptoms, possibly due to the higher levels of GABA and/or as a result of combined effects of several components including GABA. The present findings also raise the possibility that GABA in plants could have a nutraceutical role in the recovery of chronic alcohol-related diseases.