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Cytotoxicity of ethanol extracts of mulberry leaves, branches and silkworm feces

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The cytotoxicity of the ethanol extracts of varietal samples of mulberry leaves and branches and silkworm feces was measured using CT-26 cells originated from murine metastatic colon cancer, using dye uptake assay in order to find potential anticancer agents. Two ethanol extracts (varietal mulberry leaves and mulberry branches) were prepared from 16 varietal mulberries and used as partial extract materials for the activity assay. Among these, the ethanol extracts from Shinkwangppong leaves showed a little anticancer activity, and those from Sugaeppong, Cheongunppong and Gumsulppong branches showed some anticancer activity as well as cytotoxicity.

In contrast, ethanol extracts from freeze-dried, the 3rd day of 5th instar feces showed more potent anticancer activity than that of other mulberry leaves, mulberry branches and other 5th silkworm instar larva feces on the basis of high UV absorbance at 665 nm.