Anticancer Activity of Sageretia thea Through β-catenin Proteasomal Degradation in Human Colorectal Cancer and Lung Cancer Cells

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In this study, we evaluated the effect of branch (STB) and leave (STL) extracts from Sageretia thea on β-catenin level in human colorectal cancer cells, SW480 and lung cancer cells, A549. STB and STL dose-dependently suppressed the growth of SW480 and A549 cells. STB and STL decreased β-catenin level in both protein and mRNA level. MG132 decreased the downregulation of β-catenin protein level induced by STB and STL. However, the inhibition of GSK3β by LiCl or ROS scavenging by NAC did not block the reduction of β-catenin protein by STB and STL. Our results suggested that STB and STL may downregulate β-catenin protein level independent on GSK3β and ROS. Based on these findings, STB and STL may be a potential candidate for the development of chemopreventive or therapeutic agents for human colorectal cancer and lung cancer.

Keywords: Anticancer activity, β-catenin, Cancer chemoprevention, Sageretia thea

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