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## ***In vitro* Cancer Chemopreventive Activity of Protein from Starfish for Colon Cancer**

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Protein extract from *Asterias pectinifera* was tested for chemopreventive potential against colon cancer by measuring the effects on induction of quinone reductase (QR) and glutathione S-transferase (GST), cyclooxygenases-2 (COX-2) expression and activity, and 12-O-tetradecanoylphorbol-13-acetate (TPA)- induced ornithine decarboxylase (ODC) activity. Protein extract significantly induced QR activity at the concentrations of 80 and 120 µg/ml. However, GST activity in cultured murine hepatoma HepalC1c7 cells was not increased with protein extract from *Asterias pectinifera*. The expression of COX-2 in HT-29 cell was inhibited by protein extract in Western blot analysis. The extract also showed inhibition of TPA-induced ODC activity in a dose dependent manner. These results suggest that protein extract from *Asterias pectinifera* has colon cancer chemopreventive potential by inducing quinone reductase activity, COX-2 expression, ODC activity. [supported from the Marine Bioprocess Research Center at the Marine Bio 21 Center funded by the Korean Ministry of Maritime Affairs& Fisheries]