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**Effect of Starfish, *Asterina pectinifera*, on Aromatase,
Cytochrome P450 1A1, and Ornithine
Decarboxylase Activity**

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Polysaccharide extract from *Asterias pectinifera* was tested for breast cancer chemopreventive activity by measuring aromatase, 7,12-dimethylbenz[a]anthracene (DMBA)-induced cytochrome P450 1A1, and 12-*O*-tetradecanoylphorbol-13-acetate (TPA)-induced ornithine decarboxylase (ODC) activities. Polysaccharide extract from *Asterias pectinifera* showed dose dependent inhibition of aromatase activity. The extract significantly inhibited cytochrome P450 1A1 activity at the concentration of 80 and 120 µg/ml. The extract also showed 11%, 35%, 56%, and 69% inhibition of TPA-induced ODC activity at the concentrations of 20, 40, 80 and 160 µg/ml, respectively. These results suggest that polysaccharide extract from *Asterias pectinifera* has breast cancer chemopreventive potential by inhibiting aromatase, cytochrome P450 1A1, and ODC activities. [supported from the Marine Bioprocess Research Center at the Marine Bio 21 Center funded by the Korean Ministry of Maritime Affairs& Fisheries]