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Abstract

Breast cancer is the leading cause of death in women in many parts of the world. Green algae (Spirogyra sp.) Is one of the medicinal plants used in traditional medicine for the treatment of cancer. Green algae (Spirogyra sp.) has an active substance content in the form of melatonin. Melatonin is a compound that has been examined by researchers world sci as anticancer drugs and antioxidants. This study aims to determine the apoptotic effects of ethanol extract of green algae (Spirogyra sp.) On the expression of caspase-3 and Bcl-2 in T47D cells . Green algae powder was extracted by using a Soxhlet apparatus with 96% ethanol. This study used three groups: control cells, the concentration of ethanol extract of green algae 247.668 mg/ml and 123.834 mg/ml. To ensure the expression of caspase-3 and Bcl-2 test indirect immunocytochemistry. The results show there is an increased expression of caspase-3 and decrease in Bcl-2 when compared with control cells at a concentration of 123.834 mg/ml The ethanol extract of green algae (Spirogyra sp.) Has effect as an inducer of apoptosis at a concentration of 123.834 mg/ml .

Keyword : Green, algae, Spirogyra, sp., caspase-3, Bcl-2, T47D, cells, immunocytochemistry, ,

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