

## **Evaluation of Anticancer and Antioxidant Activity of Purified Lovastatin from *Aspergillus terreus* (KM017963)**

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**Abstract :** Cervical cancer is one of the leading causes of mortality in women and is the second most common malignancy worldwide. Lovastatin, a non polar, anticholesterol drug which also exerts antitumour activity in vitro. In the present study, lovastatin from *Aspergillus terreus* (KM017963) was purified by adsorption chromatography and evaluated for its anticancer and anti-oxidant properties in human cervical cancer cell lines (HeLa). The growth inhibitory and proapoptotic effects of purified lovastatin on HeLa cell lines were investigated by determining its influence on cytotoxicity, Mitochondrial Membrane Potential (MMP), DNA fragmentation and antioxidant property (Hydroxy radical scavenging effect and the levels of total reduced glutathione). Flow cytometry analysis by propidium iodide staining confirmed the induction of apoptotic cell death and revealed cell cycle arrest at G0/G1 phase. Results of the study give leads for anticancer effects of lovastatin and its potential efficacy in the chemotherapy of cervical cancer.

**Keywords :** apoptosis, *Aspergillus terreus*, cervical cancer, lovastatin

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