



Research article

Effect of ethanolic extract and n-hexane fraction of *Moringa oleifera* L. against cell cycle and apoptosis MCF-7 cell lines

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Key words: *Moringa oleifera*, Cell Cycle, Apoptosis, MCF-7 cell lines.

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Abstract

Objective: The aim of this study was to determine the effect of ethanolic extract (EE) and n-Hexane fraction (NHF) of *Moringa oleifera* L. leaf on cytotoxic effect, cell cycle and apoptosis on MCF-7 cell lines. **Methods:** In vitro Cytotoxic assays was determined by MTT (Microculture Tetrazolium Tehnique) assay, cell cycle inhibition and apoptosis were determined with flow cytometry. **Results:** Cytotoxic activity of EE with IC_{50} 94.44 μ g / mL and 97.60 μ g / mL value for NHF. The samples were caused cell accumulation in the G0-G1 phase and late necrotic region for apoptosis effect. **Conclusion:** EE and NHF are potentially to be developed as chemotherapeutic agent for breast cancer, while molecular mechanism needs to be explored.