



Abstract

Goji Berry Fruit Extract Suppresses Cell Proliferation of Breast Cancer Cells by Inhibiting EGFR/ERK Signalling [†]

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Abstract: Herbal medicines have been used in cancer treatment, with many exhibiting favorable side effect and toxicity profiles compared with conventional chemotherapeutic agents. The aim of this study was to verify whether *Lycium barbarum* fruit (red and black fruit) extracts inhibit proliferation of MDA-MB-231 cells through EGFR/ERK pathway. Cytotoxicity with MTT reduction assay and phosphorylation of EGFR and ERK were analyzed by western blot. IC₅₀ values were 87.0 and 79.4 µg/mL for goji berry black fruit extract (GBBFE) and goji berry red fruit extract (GBRFE) expectively. Pretreatment with both extract inhibited phosphorylation of EGFR/ERK in EGF-treated cells. Goji berry fruit extracts cause cellular death of MDA-MB-231 breast cancer cells by inhibiting EGFR/ERK signaling and this study suggests that Goji berry fruit extracts could be beneficial for treating breast cancer.

Keywords: Goji berry; cancer; EGFR/ERK



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