

## ABSTRACT

Cassia family has anti oxident properties also possess antibacterial, antifungal, antidiabetic, anti-inflammatory, anticancerous, antimutagenic and hepatoprotective activity. *Cassia senna* (*C. acutifolia*) is commonly known as Senna makahi. Anti cancerous activity of this plant was evaluated by **MTT assay** to check cytotoxicity **qPCR** was done to apply expression analysis of specific markers *p53*, *p21*, *Cas-4*, *Cas-5*, *Cyt-C*. Our results show that with an increase in concentration of *Cassia senna* leave extract the expression of *Cas-4*, *Cas-5* and *Cyt-C* was decreased as compared to the control which indicates that oxidative stress has decreased in the experimental groups. This decreased oxidative stress lowered the rate of DNA damage in cancerous cells and hence expression of guardian gene; p53 and its direct target; p21 was also decreased. These results suggest that *Cassia senna* plant leaf extract suppresses the cancer proliferation, which is also evident from MTT assay results.