

## عنوان مقاله:

Agrobacterium-mediated transient expression of basic fibroblast growth factor (bFGF) in fenugreek (*Trigonella foenum-graecum* L)

## محل انتشار:

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## خلاصه مقاله:

The basic fibroblast growth factor (bFGF) has the potential applications as a therapeutic agent for tissue repair, skin wound healing, and recovery of the neurodegenerative diseases. In this study, after the optimization of all steps in transient transformation by *Agrobacterium*, the bFGF gene expression was examined in fenugreek leaves infiltrated with different *Agrobacterium* strains under optimal conditions. These include the AS concentration of  $200 \mu\text{M}$ , bacterial density (OD) of  $1.0 \times 10^6$ , and co-cultivation time for 10 days. The transient expression of the insert was verified in the infiltrated leaves by qRT-PCR analysis. The production of the recombinant bFGF protein was also rectified by Western blot analysis. In addition, the production titers of the recombinant bFGF protein were measured by enzyme-linked immunosorbent assay (ELISA) in all infiltrated leaf samples. Although, there were no significant differences in relative levels of bFGF transcript among the different treatments, but the accumulation levels of recombinant bFGF were significantly affected by *Agrobacterium* strains. It is possibly due to the post-transcriptional gene silencing. The highest accumulation level of recombinant protein was obtained in leaf samples infiltrated by the EHA105 strain, estimated to be about  $3.85 \text{ ng bFGF g}^{-1} \text{ FW}$ .

## کلمات کلیدی:

*Agrobacterium*, Fibroblast growth factor, GUS activity, Histochemical assay, Transient expression

## لینک ثابت مقاله در پایگاه سیویلیکا:

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