

عنوان مقاله:

Supplementary Analysis of Phosphoenolpyruvate Carboxykinase Gene Expression in Developing Seeds of Chickpea

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خلاصه مقاله:

A gene of interest in this study is phosphoenolpyruvate carboxykinase (pepck), encoding a protein with a substantial role in the gluconeogenesis pathway and in metabolism of nitrogenous compounds in developing seeds of legumes, including amides and ureides which are then transformed into amino acids necessary for the synthesis of storage proteins. Whereas studies on genes contributing to the seed filling in chickpea and its protein content might be valuable in engineering plants with seeds of a higher nutritional value. In order to investigate pepck gene expression in different genotypes of chickpea (*Cicer arietinum* L.), four genotypes of chickpea were studied by Real-time PCR and western blot techniques. So results show that pepck expresses in high protein genotypes more than low protein genotypes at different growth stages and there was a differential expression of pepck gene at different stages of flowering and seed development. The PEPCK was expressed at higher levels during the shoot formation and in developing seeds compared to the flowering and seed formation stages

کلمات کلیدی:

Chickpea, Protein, Phosphoenolpyruvate Carboxykinase, Real-time PCR, Western blot

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