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Monitoring and quantification of expression level of *Brassica campestris* myrosinase by real-time quantitative method

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Objectives

We have tried to develop monitoring method which accomplishes quantitative analysis by real-time RT-PCR.

Materials and Methods

1. Material

pQE-myro32 vector

thiohydroxymate S-glucosyltransferase reverse primer (+ ScaI)

5′-gag ctc tca atg ttt ctt ccc taa-3′

thiohydroxymate S-glucosyltransferase forward primer (+ BamHI)

5′-gga tcc atg gcg gaa aca aca aca-3′

2. Methods:

Real time reverse transcription-poly chain reaction, SDS-Poly Acrylamide Gel Electrphoresis

Results and Discussion

Glucosinolate is a secondary metabolite considered to play a role in plant defense against pathogens and insert pests. It is hydrolyzed to an aglycone by myrosinase during chopping and chewing of uncooked vegetables. Glucosinolate and their break down products could also act as antipromotor agents by causing apoptosis of highly proliferating tumorigenic cells. In present study, we developed monitoring methods which accomplish quantitative analysis on expression of myrosinase by real time RT-PCR. The detection primer pair showed high specificity, respectively, and produced 183bp of particular RCR-product. We look forward to using of this myrosinase detection method could assort overexpression intergenic transformants or application for effective monitoring tool of selected transformants.

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