



Variations in *BARE-1* insertion patterns in barley callus cultures

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ABSTRACT. The stability of aging barley calli was investigated with the barley retroelement 1 (*BARE-1*) retrotransposon specific inter-retrotransposon amplified polymorphism (IRAP) technique. Mature embryos of barley (*Hordeum vulgare* cv. Zafer-160) were cultured on callus induction MS medium supplemented with 3 mg/L 2,4-D and maintained on the same medium for 60 days. Ten IRAP primers were used in 25 different combinations. The similarity index between 30-day-old and 45-day-old calli was 84%; however, the similarity index between mature embryos and 45-day-old calli was 75%. These culture conditions caused *BARE-1* retrotransposon alterations to appear as different band profiles. This is the first report of the use of the IRAP technique in barley in an investigation of callus development.

Key words: *BARE-1*; *Hordeum vulgare* L.; Tissue culture; Inter-retrotransposon amplified polymorphism