

***IN SITU* RT-PCR ANALYSIS OF *CUS1*, *CUS3*, *CUS5* GENE
EXPRESSION DURING CUCUMBER SOMATIC EMBRYO
DEVELOPMENT**

EWA SIEDLECKA, MARCIN FILIPECKI and ZBIGNIEW PRZYBECKI
Department of Plant Genetics, Breeding and Biotechnology, Warsaw, Poland,
Agricultural University, Nowoursynowska 166, 02-787 Warsaw, Poland,
E-mail: siedlecka@alpha.sggw.waw.pl

The aim of our study was to adopt the methodology of *in situ* RT-PCR to cucumber tissues from *in vitro* culture. The expression of the *CUS1*, *CUS3*, and *CUS5* genes was analysed in cucumber somatic embryogenesis. The analysed genes belong to the gene family of MADS-box transcription factors. The expression of the *CUS1* gene was detected in the outside layers of the basal parts of a 14-day old somatic embryo (heart stage). The strong expression of *CUS1* was also observed in cucumber seed (14 a.p.). The expression of the *CUS3*, and *CUS5* genes was detected in 7-day old somatic embryos. This signal was found in small, meristematic cells. The negative control was the reaction without the specific primers, while the positive control was the reaction with 25S rRNA specific primers. Our results confirm the embryo specific transcription of the analysed genes.