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original scientific paper

**Detection of Genetic Modification 'ac2' in Potato Foodstuffs** *Radka Pribylova*<sup>1\*</sup>, *Petr Kralik*<sup>1</sup>, *Ivo Pavlik*<sup>1</sup> and *Milan Bartos*<sup>2</sup>

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## Summary

The genetic modification 'ac2' is based on the insertion and expression of *ac2* gene, originally found in seeds of amaranth (*Amaranthus caudatus*), into the genome of potatoes (*Solanum tuberosum*). The purpose of the present study is to develop a PCR method for the detection of the mentioned genetically modified potatoes in various foodstuffs. The method was used to test twenty different potato-based products; none of them was positive for the genetic modification 'ac2'. The European Union legislation requires labelling of products made of or containing more than 0.9 % of genetically modified organisms. The genetic modification 'ac2' is not allowed on the European Union market. For that reason it is suitable to have detection methods, not only for the approved genetic modifications, but also for the 'unknown' ones, which could still occur in foodstuffs.

Key words: GMO, Solanum tuberosum, PCR, antimicrobial peptide, food safety

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