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ANALYSIS OF PORCINE DNA IN SEVERAL FOOD PRODUCTS

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ABSTRACT

Species identification in food products has grown interest in recent years since these foodstuffs are liable targets for fraudulent labelling. Consumers of Halal products typically buying those with a Halal logo stamped on the packaging without doubt for its authenticity. DNA-based methods on PCR amplification were used to identify the presence of porcine DNA in the processed food samples. Genomic DNA of porcine was extracted using DNA-Sorb-C and subjected to PCR amplification targeting the mitochondrial 12S rDNA gene and porcine leptin gene (LEP). Out of 66 samples, 37 samples showed amplified product of 387 bp with mitochondrial 12S rDNA gene and 59 samples showed amplified products of 152 bp with LEP. The verification for Halal authentication of food products is significant for economical, religious and public health concerns.

Key words: food products, Halal, mitochondrial 12S rDNA gene, leptin gene, porcine, PCR