Enzyme immunoassay for the detection of porcine gelatine in edible bird's nests

ABSTRACT

Porcine gelatine is a common adulterant found in edible birdôs nests (EBNs) used to increase the net weight prior to sale. This study aimed to develop indirect enzyme-linked immunosorbent assays (ELISAs) for porcine gelatine adulteration using anti-peptide polyclonal antibodies. Three indirect ELISAs were developed (PAB1, 2 and 3), which had limits of detection (LODs) of 0.12, 0.10 and 0.11 µg gï 1, respectively. When applied to standard solutions of porcine gelatine, the inter- and intra-assays showed coefficients of variation (CVs) less than 20% and were able to detect at least 0.5 ng µgï 1 (0.05%) porcine gelatine in spiked samples. The proposed ELISA offers attractions for quality control in the EBN industry.

Keyword: Edible bird's nest; Gelatine; Adulterant; ELISA