

# Author's Accepted Manuscript

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PII: S2212-4292(17)30011-1  
DOI: <http://dx.doi.org/10.1016/j.fbio.2017.05.001>  
Reference: FBIO191

To appear in: *Food Bioscience*

Received date: 13 January 2017  
Revised date: 19 April 2017  
Accepted date: 3 May 2017

Cite this article as: Bambang Kuswandi, Agus Abdul Gani and Musa Ahmad Immuno Strip Test for Detection of Pork Adulteration in Cooked Meatballs *Food Bioscience*, <http://dx.doi.org/10.1016/j.fbio.2017.05.001>

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**Immuno Strip Test for Detection of Pork Adulteration in Cooked Meatballs**

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**ABSTRACT**

A rapid immuno strip test was developed to provide visual detection of pork adulteration in processed meats. Gold nanoparticles was prepared and conjugated with anti-Swine IgG polyclonal antibody. A lateral flow immunosensor was developed, and then were used to test pork adulterated in processed meats, i.e. beef meatball samples. The simulated samples consisted of pork-in-beef meatball at the ratio of 0 to 100 (%w/w) adulteration levels that were extracted in phosphate-buffered solution. Pure beef meatball without pork was included as controls. The response time was completed in 5 min, after incubation time. Detection limit of the immunosensor strip was 0.1% (w/w). This immunosensor tests can be applied to detect low levels of pork adulteration in beef meatballs. The reliability of the assay was further investigated by comparing the results to those of commercially available ELISA kits. It was obtained that the correlation of two methods was excellent. Thus, the strip could provide a simple approach to detect pork adulteration in processed meats samples with high reliability.

*Key words: immunosensor, strip test, pork adulteration, processed meats, beef meatball.*

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