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Novel magnetic nanobeads-based fluoroimmunoassays for zearalenone detection in cereals using protein G as the recognition linker

Fuyuan Zhang ^{a,c}, Bing Liu ^a, Guozhen Liu ^c, Wei Sheng ^a, Yan Zhang ^a, Qi Liu ^a, Shuo Wang ^{a,b*}

^aKey Laboratory of Food Nutrition and Safety, Ministry of Education of China, Tianjin University of Science and Technology, Tianjin 300457, China.

^bBeijing Advanced Innovation Center for Food Nutrition and Human Health, Beijing Technology & Business University (BTBU), Beijing 100048, China.

^cARC Centre of Excellence in Nanoscale Biophotonics (CNBP), Macquarie University, North Ryde 2109, Australia.

* Corresponding author: Key Laboratory of Food Nutrition and Safety, Ministry of Education of China, Tianjin University of Science and Technology, Tianjin 300457, China. Email: s.wang@tust.edu.cn.

Highlights

- Two novel MNBs-based fluoroimmunoassays were developed for detecting zearalenone.
- Protein G was used as recognition binder to capture anti-zearalenone IgG.
- CdTe/CdS/ZnS QDs were modified as novel signal probes.
- The assays were applied in the sensitive detection of zearalenone in cereal samples.

Abstract

Zearalenone (ZEN) is a type of estrogenic mycotoxin commonly found in cereals. In order to satisfy the need for ultrasensitive detection of ZEN, we developed two novel magnetic nanobeads (MNBs)-based fluoroimmunoassays using protein G (PG) as recognition binder on the sensing interface. One proposed facile strategy is based

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