

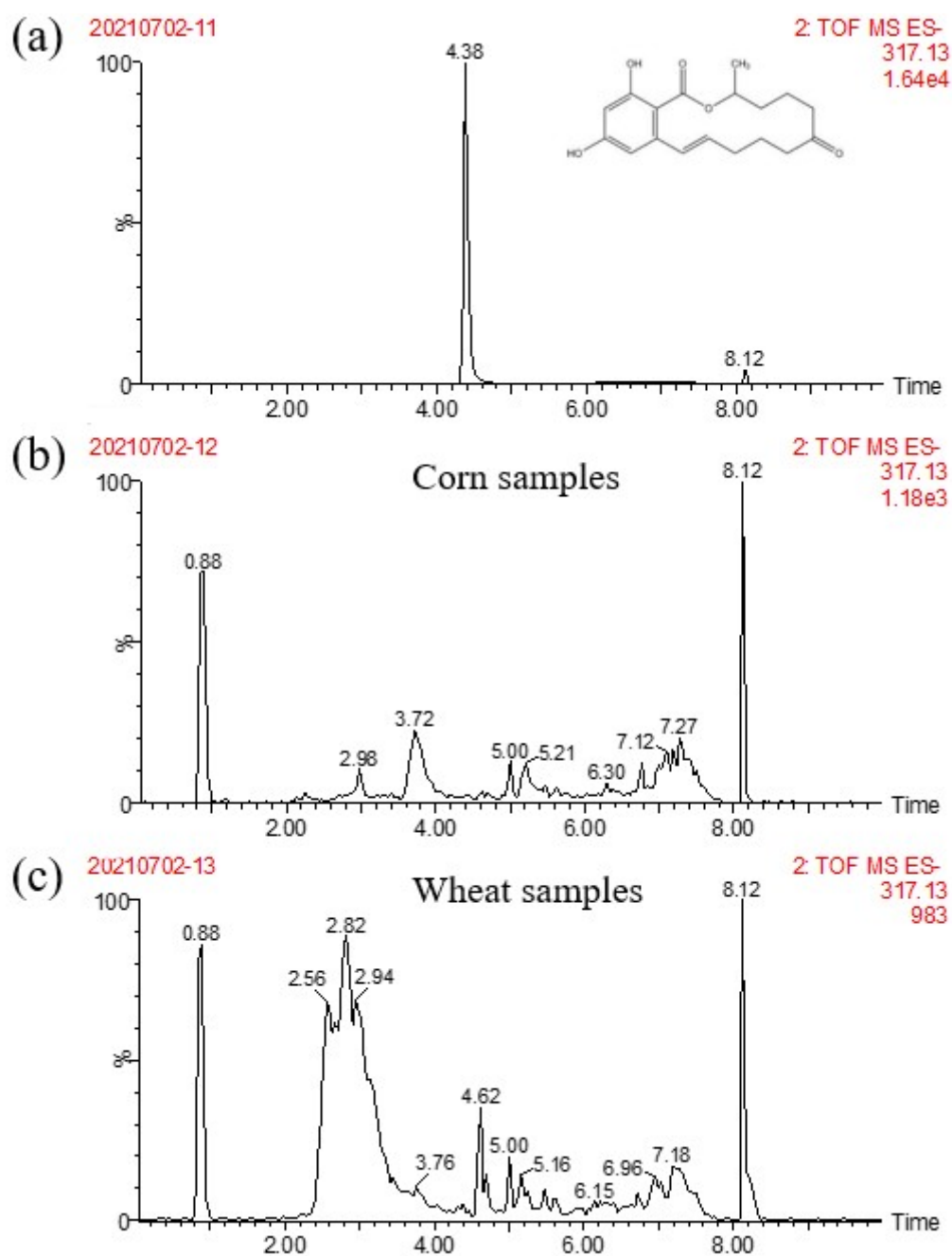
**Fluorescent paper biosensor for the rapid and ultrasensitive  
detection of zearalenone in corn and wheat  
(Supporting Information)**

**Captions:**

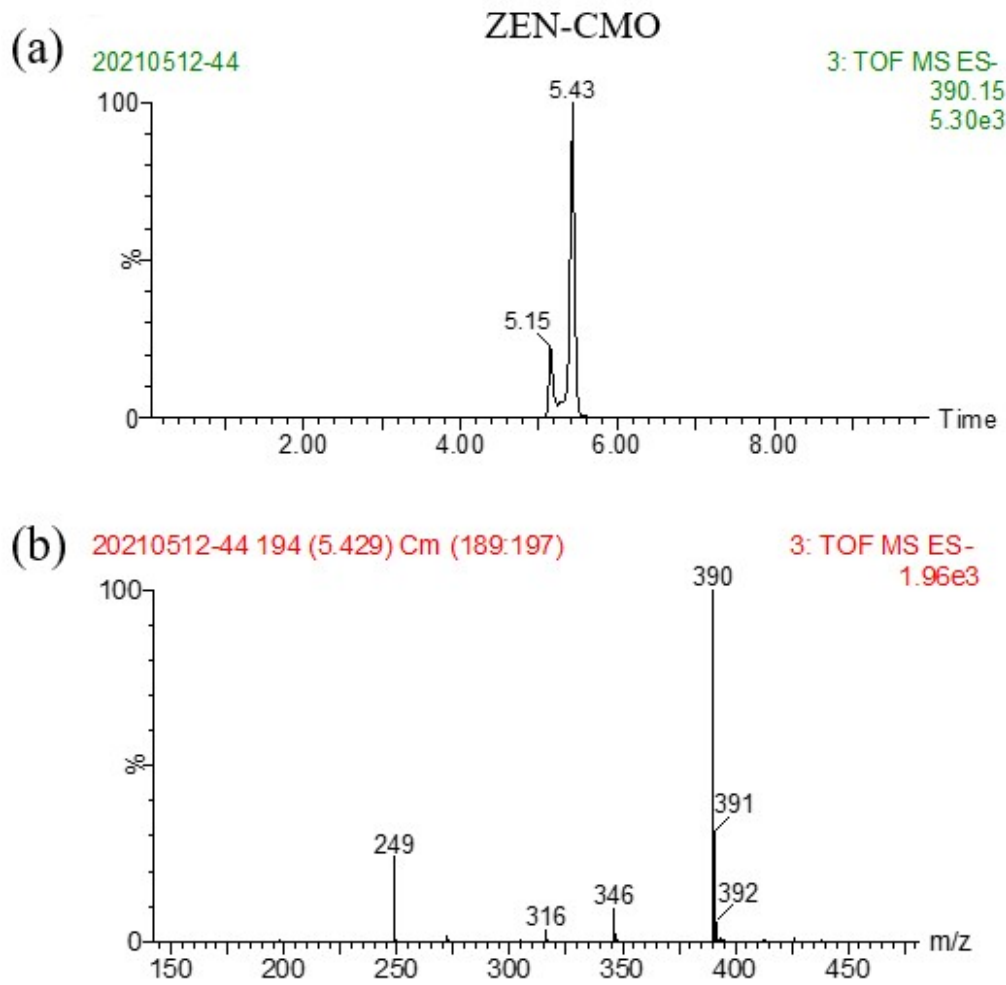
**Fig. S1.** Identification of negative samples by LC-MS.

**Fig. S2.** LC-MS analysis of ZEN derivatives.

**Table S1.** The comparison of the FM-ICTS assay with other methods.



**Fig. S1.** Identification of negative samples by LC-MS.



**Fig. S2.** LC-MS analysis of ZEN derivatives.

**Table S1.** The comparison of the FM-ICTS assay with other methods.

| Assays          | Samples      | LOD<br>(ng/g) | Cut-off value<br>(ng/g) | Time   | Ref.                                  |
|-----------------|--------------|---------------|-------------------------|--------|---------------------------------------|
| UHPLC-MS/<br>MS | Milk         | 0.02          | -                       | Long   | Gonzalez-Jartin<br>et al <sup>1</sup> |
| LC-MS           | Pearl millet | 0.12          | -                       | Long   | Houissa et al <sup>2</sup>            |
| ic-ELISA        | Pig feed     | 0.11          | -                       | Medium | Dong et al <sup>3</sup>               |
| GICA            | Corn         | -             | 50                      | Short  | Hao et al <sup>4</sup>                |
| FM-ICTS         | Corn         | 0.68          | 25                      | Short  | This study                            |
|                 | Wheat        | 0.48          | 25                      |        |                                       |

## Reference

1. Gonzalez-Jartin, J. M.; Rodriguez-Canas, I.; Alfonso, A.; Sainz, M. J.; Vieytes, M. R.; Gomes, A.; Ramos, I.; Botana, L. M., Multianalyte method for the determination of regulated, emerging and modified mycotoxins in milk: QuEChERS extraction followed by UHPLC-MS/MS analysis. *Food Chemistry* 2021, *356*, 129647.
2. Houissa, H.; Lasram, S.; Sulyok, M.; Sarkanj, B.; Fontana, A.; Strub, C.; Krska, R.; Schorr-Galindo, S.; Ghorbel, A., Multimycotoxin LC-MS/MS analysis in pearl millet (*Pennisetum glaucum*) from Tunisia. *Food Control* 2019, *106*, 106738.
3. Dong, G.; Pan, Y.; Wang, Y.; Ahmed, S.; Liu, Z.; Peng, D.; Yuan, Z., Preparation of a broad-spectrum anti-zearalenone and its primary analogues antibody and its application in an indirect competitive enzyme-linked immunosorbent assay. *Food Chemistry* 2018, *247*, 8-15.
4. Hao, K.; Suryoprabowo, S.; Song, S.; Liu, L.; Kuang, H., Rapid detection of zearalenone and its metabolite in corn flour with the immunochromatographic test strip. *Food and Agricultural Immunology* 2018, *29* (1), 498-510.