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On-Site Visual Discrimination of Transgenic Food by Water-soluble DNA-binding AIEgens

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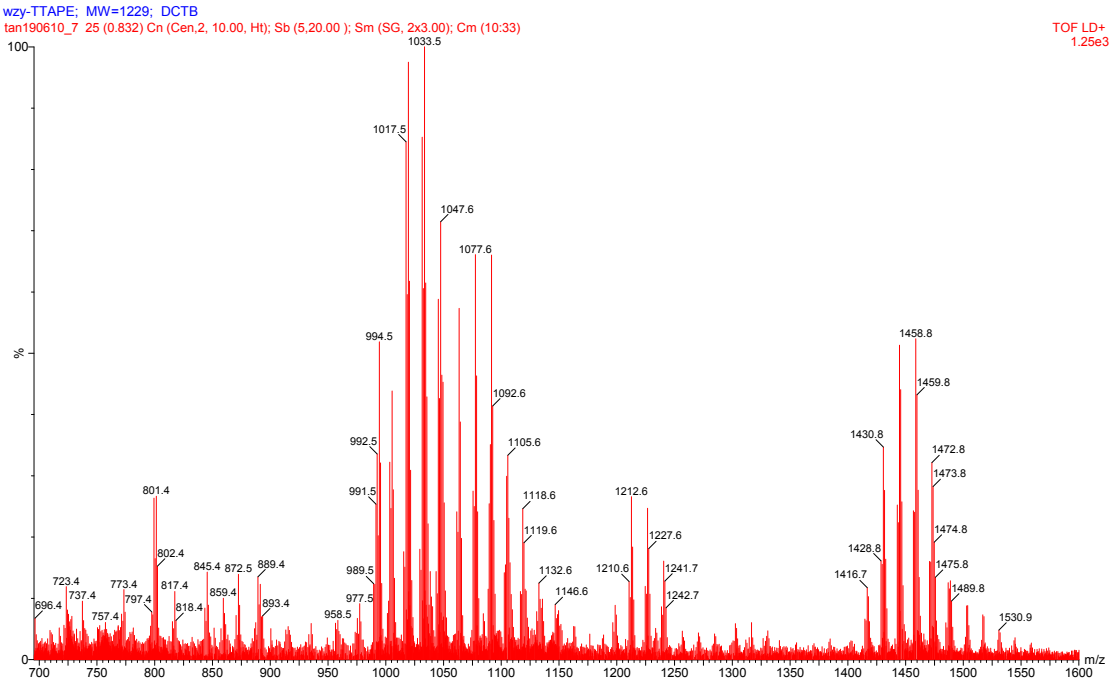

Fig. S1 The mass spectra of TTAPE

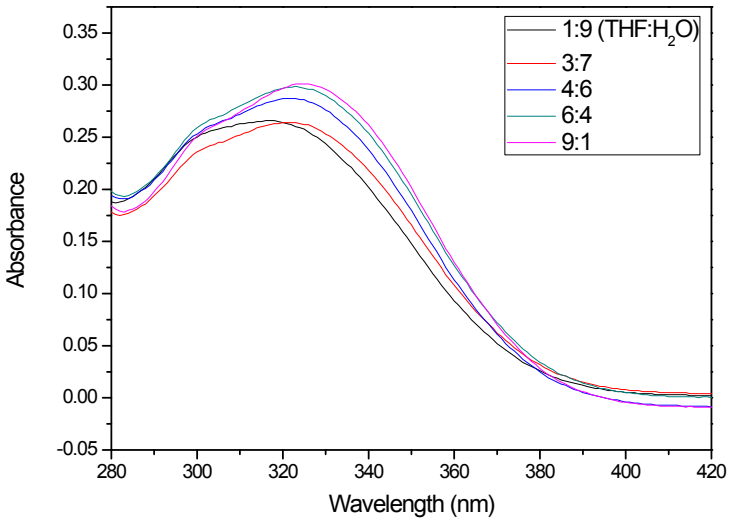

Fig. S2 The UV spectra of TTAPE in different solutions

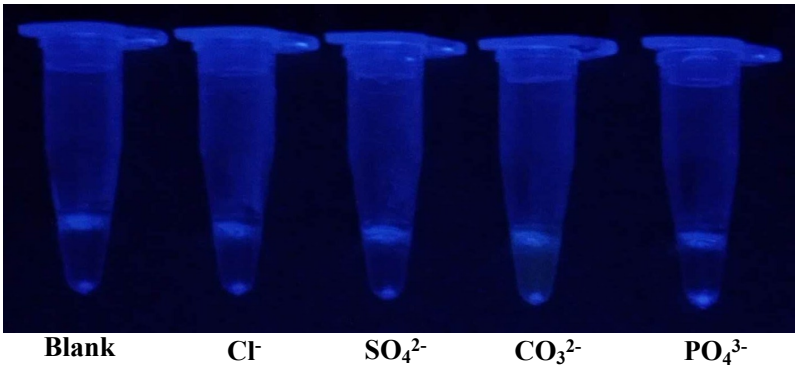

Fig. S3 Interference of negatively charged compounds on the emission of TTAPE

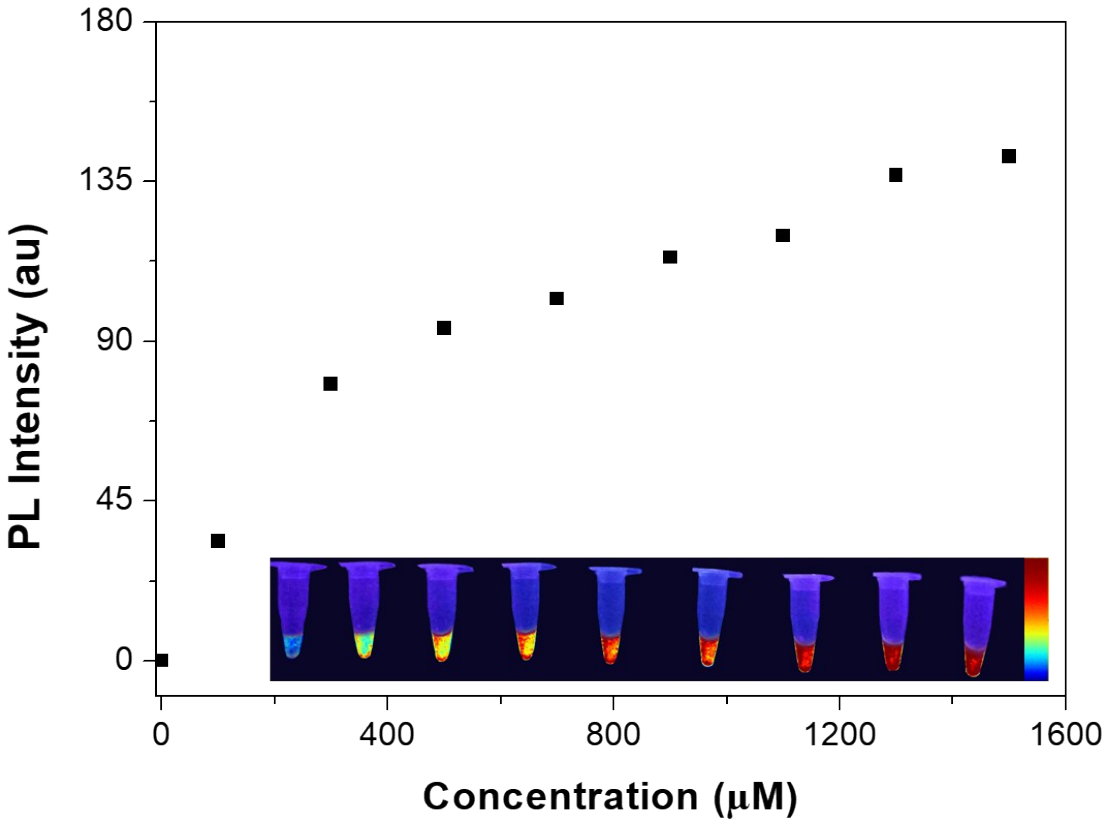

Fig. S4. The PCR product of Rep genes with different concentrations of TTAPE. The results were obtained with the portable spectrometer.

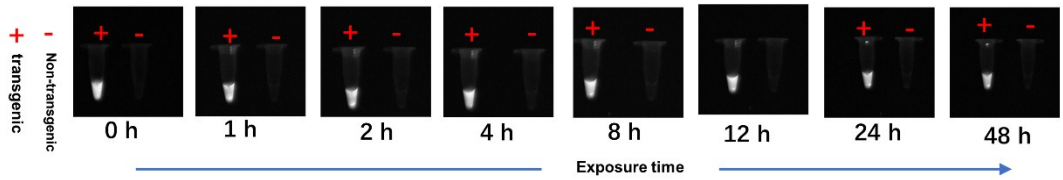

Fig. S5. The stability for visual discrimination during different time periods. The results were obtained with smartphone.

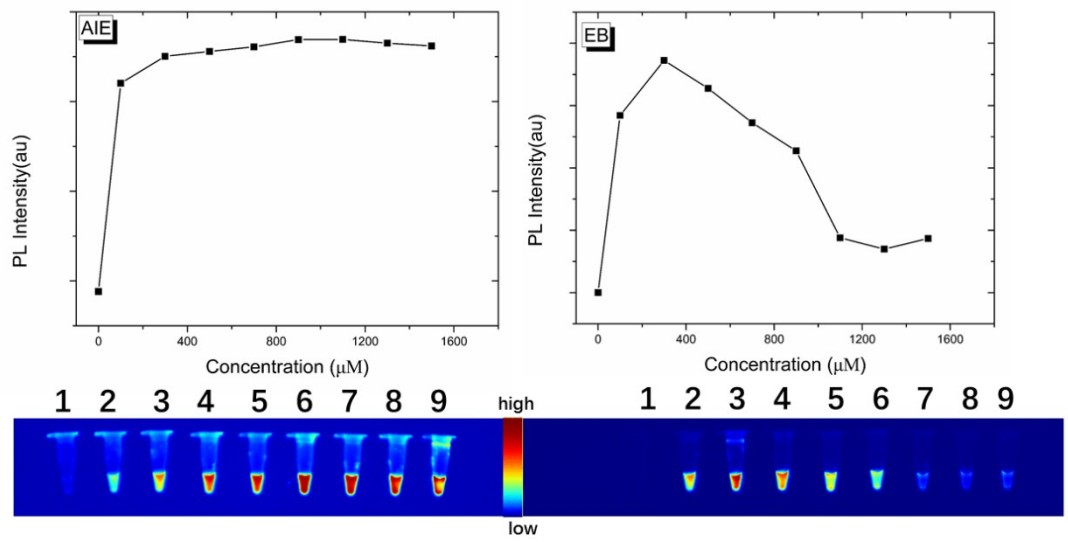

Fig. S6 The PCR product of Rep genes with different concentrations of TTAPE and ethidium bromide (EB). 1-blank, 2-100 μM, 3-300 μM, 4-500 μM, 5-700 μM, 6-900 μM, 7-1100 μM, 8-1300 μM, 9-1500 μM.

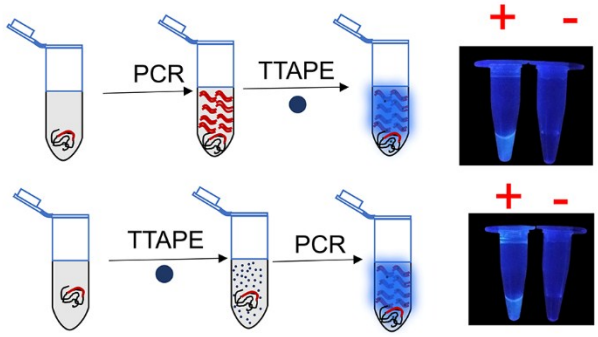

Fig. S7. The influence of TTAPE on PCR process. "+" represented Transgenic sample, "-" represented non-transgenic sample. The results were obtained with smartphone.

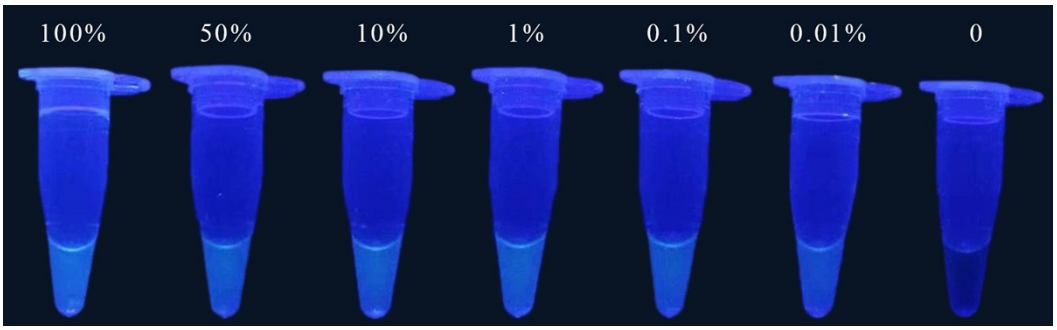

Fig. S8. The limit of detection of the assay for the presence of transgenic material in model mixtures. The sample was prepared by mixing the transgenic sample with the non-transgenic sample to obtain the final mixture with 0.01 to 100 wt% of transgenic sample. All these mixtures were analyzed with our method. The results were obtained with smartphone.