

Response to the comments from Referee 2:

General comments and suggestions:

The presented ms “A glycoprotein-based SERS-LFA method for abrin and ricin detection” describes the binding of abrin and ricin to the glycoproteins asialofetuin (ASF) and concavalin A (ConA) with a detection limit of 0.1 for abrin and 0.3 ng/mL for ricin and their detection (abrin-ASF/ConA or ricin-ASF/ConA complexes through Surface-enhanced Raman Spectroscopy in combination with an Lateral Flow Assay (SERS-LFA).

They fabricated a sandwich format using asialofetuin (ASF) and concanavalin A (ConA) in our SERS-LFA test strip. These test strips have achieved rapid and highly sensitive detection of abrin and ricin and have been applied to the screening of powder samples and liquid (juice drink) and real plant samples.

Overall, the ms is sound and shows a straightforward and elegant application of their method for the detection of abrin and ricin contamination in food or other sample of interest. The reported detection limit is comparable to the limit recently reported by Bai et al. “A Self-Driven Microfluidic Chip for Ricin and Abrin Detection” (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9101213/>).

Though this work is a proof of principle I miss a notion within the discussion on how to implement this detection method on a large scale for diagnostics and or commercialization of the test-strip and detection equipment.

Response: Thank you for your recognition, we appreciate it. We also discussed the further application in the section of the conclusion remark. Please refer to the lines 340-341, page 11 and lines 398-404, page 13, in the revised version.