

Response to Reviewer 2 Comments

Point 1: The paper titled “A Strategy of Sample Preparation Using Egg White Gel to Promote the Determination of Aflatoxin M1 Content in Milk Samples” investigated the possibility to employ hydrogel formed from concentrated egg white as extraction step for AFM1 quantification method. The topic is novel and scientifically relevant.

The manuscript is well-structured and clearly written. Figures and tables are clear and well-presented. Cited references are relevant and recent. Nevertheless, the manuscript needs to be reviewed for some minor technical corrections.

Title is suitable and illustrates the aim of the research.

Introduction is concise and informative, indicating the background and the aim of the research.

Results are presented in clear and understandable manner, and comprehensively discussed.

Methodology is described in detail, enabling the reader to replicate the research. The method validation methodology was appropriately selected and adequately presented.

Response 1: Thank you for your recommendation and comments, these are highly insightful and have enabled us to greatly improve the quality of our manuscript. We have revised the whole manuscript carefully according to your suggestion.

Point 2: Conclusions are derived from the results and well-presented. However, it would be useful if the authors indicated any weaknesses or limitations that employment egg white gel as extraction step may have.

Response 2: Yes, we agree. Thank you for your valuable comment. We improved the related discussion in 2.11. Further improvements of the research method are as follows:

2.11 Further improvement of the research method

We found that currently available market-sold egg white powder is redissolved in water as an extract, which did not meet the requirements for extraction because it could not form a suitable hydrogel. Therefore, it is necessary to use fresh eggs to prepare egg white gel. In this process, attention should be paid to avoid the introduction of yolk, so as not to affect the repeatability of the sample purification process.

At present, the egg white gel was prepared in the laboratory for analysis and the verification of the methodology of AFM1 in milk. Next, we will further study the simultaneous detection of a variety of mycotoxins across multiple species animal-derived samples such as muscle and viscera. On this basis, we will also optimize the process parameters after scaling up the production, in

order to realize the application of this environmentally friendly material in a wider range of fields.