Supplementary Information (SI) for Nanoscale Horizons. This journal is © The Royal Society of Chemistry 2025

Dear editor:

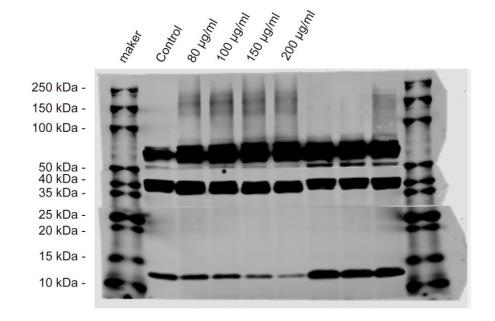
We sincerely apologize for the inconvenience. I offer the images in this word. In WB experiment, after the full gel was transferred onto PVDF membrane, the PVDF membrane was sectioned into three parts based on the molecular markers to separate two target proteins and internal control (10-15 kDa, 25-50 kDa, and 50-250 kDa), and then followed by the corresponding primary antibodies incubation respectively. Finally, three cropped membranes were put together for parallel detection and imagination.

During the WB analysis, the cropped approach is a normal operation, which could optimize different antibody incubation and minimize cross-reactivity between antibodies, reducing nonspecific background signals. If the full membrane is incubated with different antibodies simultaneously, it would obscure the interpretation of target protein signals. Moreover, when the full membrane is sequentially incubated with the antibodies specific to different target proteins, the inconsistency of operation may affect the accuracy of results.

I provide the original blots with clear annotations. It indicates that the cropped areas marked by the red cutting lines and box from the same membrane. In addition, there are some replicate results to confirm the variations of the DLAT and FDX1 expression levels after different concentrations of CP treatments. All the pictures are attached. If the data does not conform to the journal's requirement. I wonder whether I could repeat the WB experiment within a certain period, using the data of full gel to replace the present data in manuscript. Thank you for your understanding and support.

Best regards, Xinli Liu

Fig 4D: Raw data



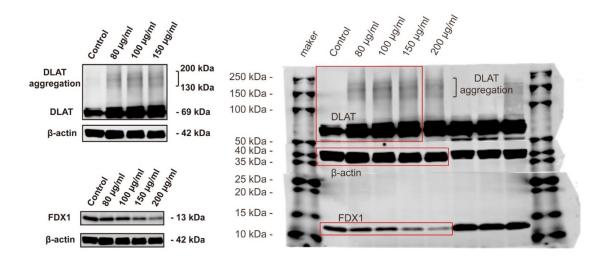
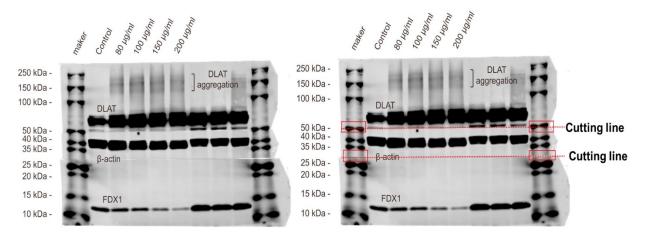


Figure 4D in manuscript

Figure 4D original bolts

Figure 4D original bolts



Replicate results

