

**Figure S1.** Far-UV circular dichroism spectra of (a) β-lactoglobulin (BLG), non-treated (NT), chemical modification control without addition of glyoxylic acid (C1), chemically modified to introduce Nε-carboxymethyl lysine (CML) at different degree of modification (1, 3, and 5), (b) BLG glycated with lactose (Lac) at 60 °C for 12, 24, and 48 hours, (c) BLG heated in the absence of lactose (H) at 60 °C for 12, 24, and 48 hours, and (d) BLG glycated and subsequently chemically modified.