



**Supplementary Figure 3. Close-up views of the CBM–KD interface and conformation.** (a) Overlay of the structure of compound 991-bound AMPK (grey, PDB 4CFE) with that of cyclodextrin (CD)-bound AMPK (color). The CBMs and the  $\alpha$ B- and  $\alpha$ C-helices of the KDs adopt distinctly different conformations in the two structures. Please note that the C-interacting helix in CD-bound CBM is partially disordered and presented here as a single helical turn. (b) Close-up of the KD–CBM interface around phospho-serine 108 of the CBM (shown with  $2F_o - F_c$  electron density map [pink mesh] contoured at  $1\sigma$ ). N: N-terminus of  $\alpha$ 1 and  $\alpha$ 2 subunit.