Supplementary Information

Coordination design of cadmium ions at the 4-fold axis channel of the apo-ferritin cage

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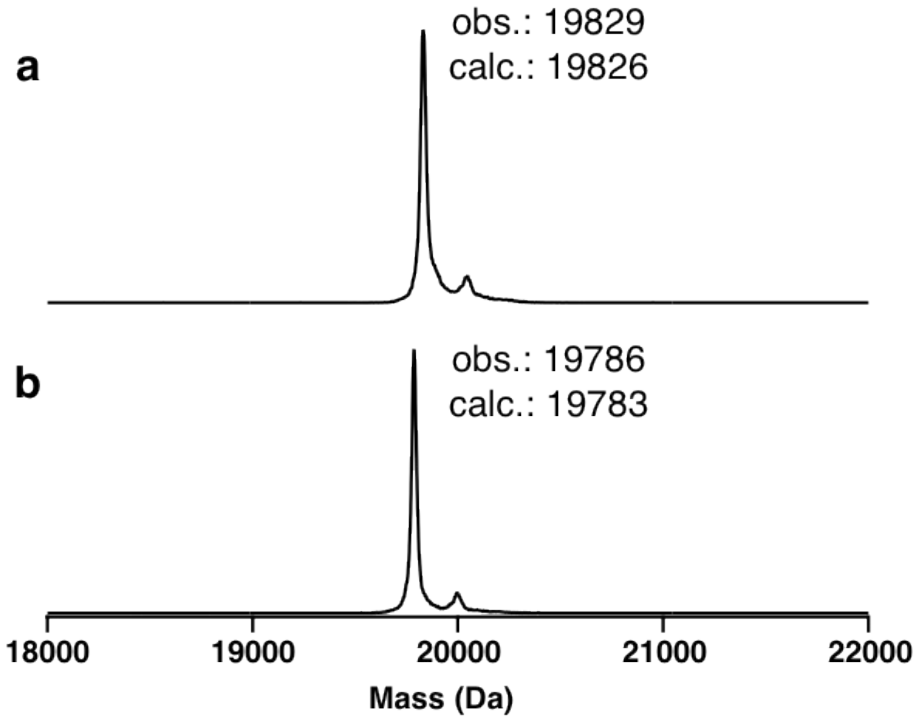

Figure S1. MALDI-TOF mass spectra of (a) **apo-L161C/L165C-rHLFr** and (b) **apo-R168C/L169C-rHLFr**.

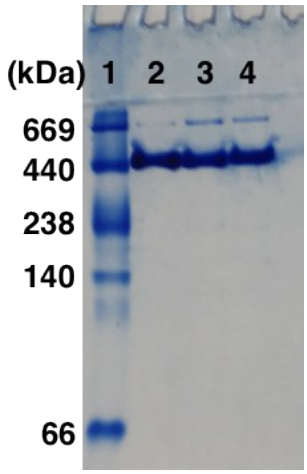

Figure S2. Native PAGE of marker (lane 1), apo-rHLFr (lane 2), **apo-L161C/L165C-rHLFr** (lane 3) and **apo-R168C/L169C-rHLFr** (lane 4).

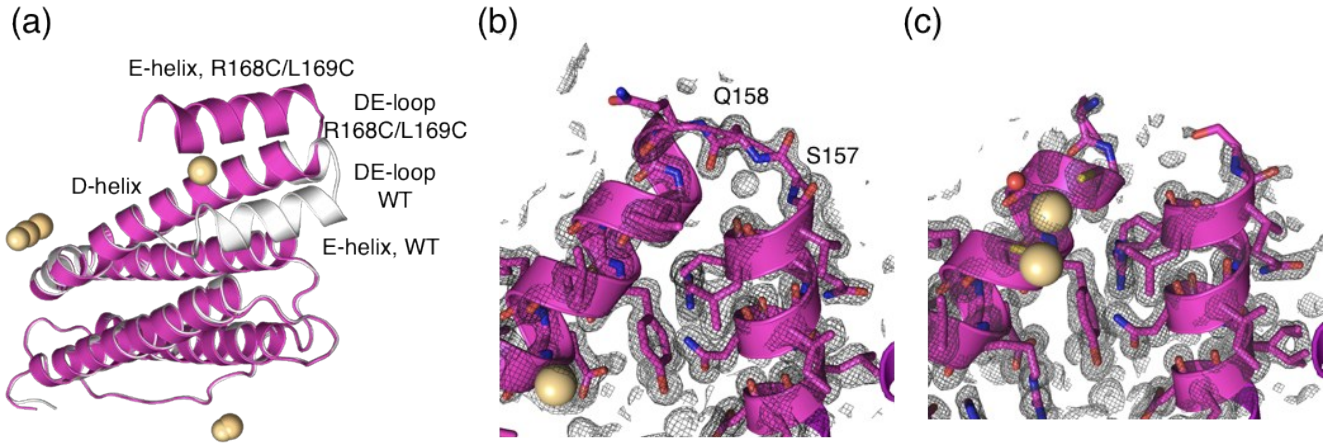

Figure S3. (a) Superimposed structure of apo-rHLFr (white) and **apo-R168C/L169C-rHLFr** (magenta). (b and c) DE loop structure with electron density map of (b) **apo-R168C/L169C-rHLFr** and (c) **apo-L161C/L165C-rHLFr**. The Cd atoms are sphere models colored with beige. $2F_o$-F_c electron density maps at 1σ are shown in grey.

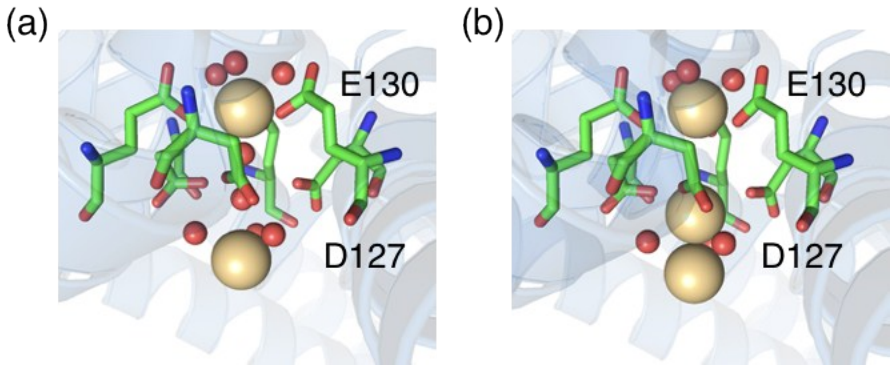

Figure S4. Close up views of 3-fold axis channels of (a) **apo-L161C/L165C-rHLFr** and (b) **apo-R168C/L169C-rHLFr**. The Cd atoms are sphere models colored with beige. The O atoms of water molecules are shown as red sphere.