

Supplementary information, Figure S4

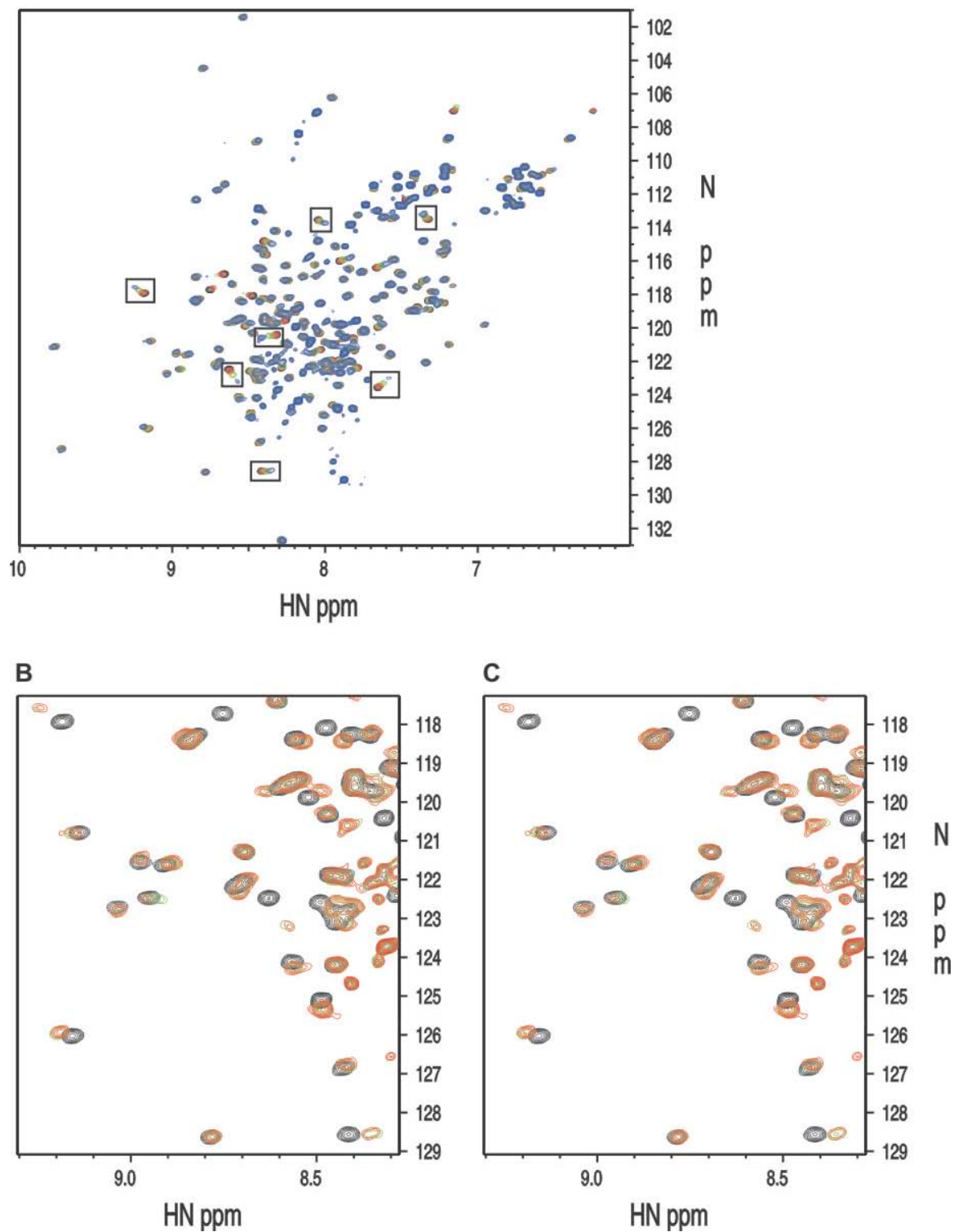


Figure S4 Effect of membrane surface charge or talin-F2F3 mutation on talin-F2F3/talin-RS interaction. **(A)** Full spectra of Figure 4B. **(B)** The addition of 4:1 POPC:POPS LUV (green) to the talin-F2F3/talin-RS complex (red) shows little effect on the complex (free talin-F2F3 is in black), in

contrast to that by 4:1 POPC:PIP2 LUV shown in Figure 4B (red). (C) The same spectral region of ¹⁵N-labeled talin-RS as in Figure 4B in the absence (black) and presence of WT talin-F2F3 (red). The green spectrum shows that talin-F2F3 K272A/K274A mutation does not perturb the talin-F2F3/talin-RS interaction, which is consistent with the complex interface being between talin-F3 and talin-RS. However, the mutation dramatically reduces the PIP2-induced disruption of the talin-F2F3/talin-RS interaction (compare with the green and red spectra in Figure 4B), indicating that the PIP2-mediated “pull” effect in Figure 4A is significantly impaired.