Supporting Information

Andrews *et al.* 10.1073/pnas.0804039105

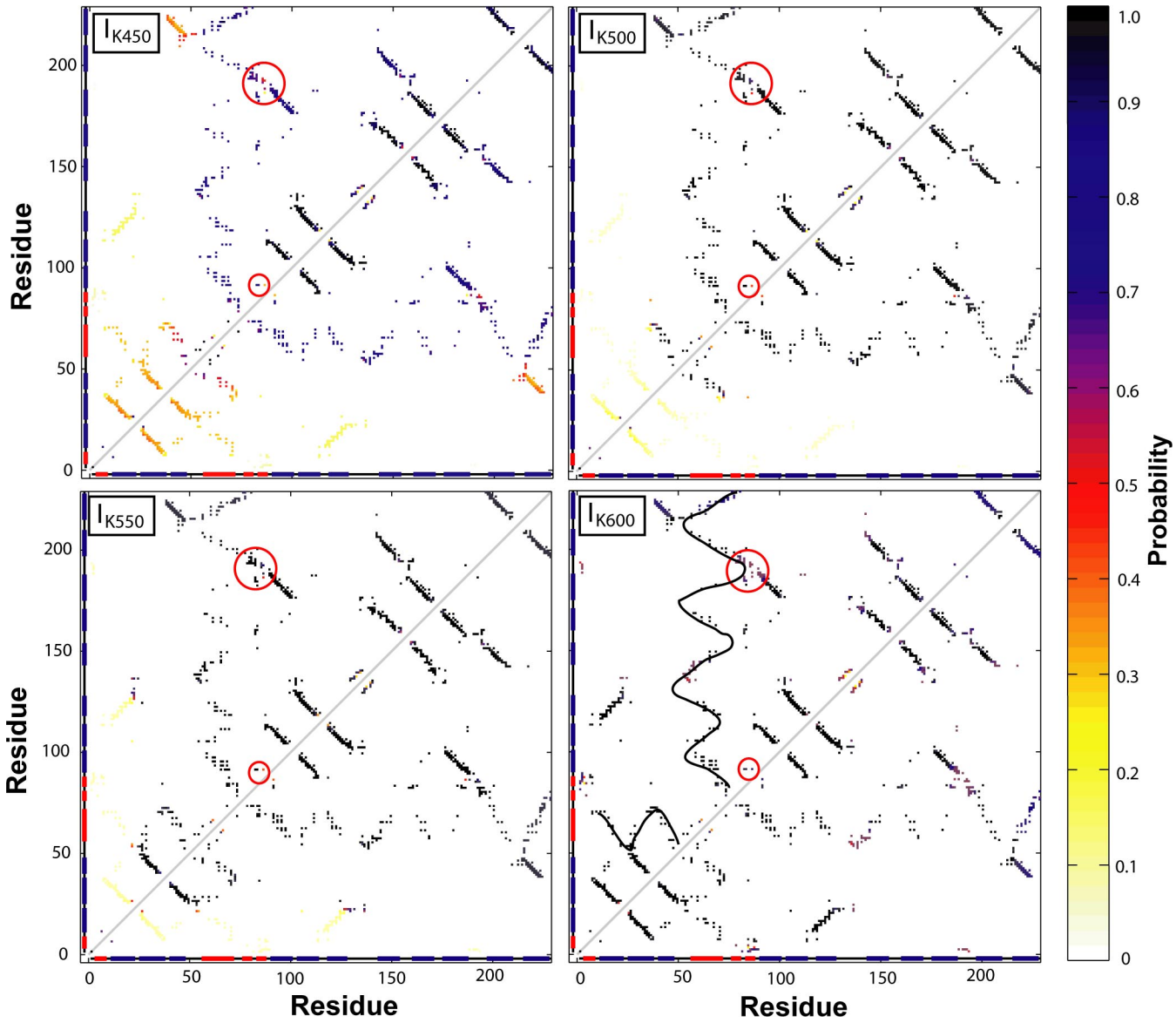

Fig. S1. Contact maps of kinetic intermediates. Red and blue bars along the axis show α-helices and β-strands, respectively. The probability of a given contact being made is shown as a color on the color map on the right. Kinetics intermediates I_{K450}, I_{K500}, and I_{K550} all are missing N-terminal β-strands. Kinetic intermediate I_{K600} is destabilized in the central α-helix and C-terminal β-strand. Lines to guide the eye are drawn in I_{K600} to show contacts the α-helix makes across the barrel strands. Contacts related to prolines discussed are marked with red circles. Kinetic intermediate labels do not obscure any contacts.

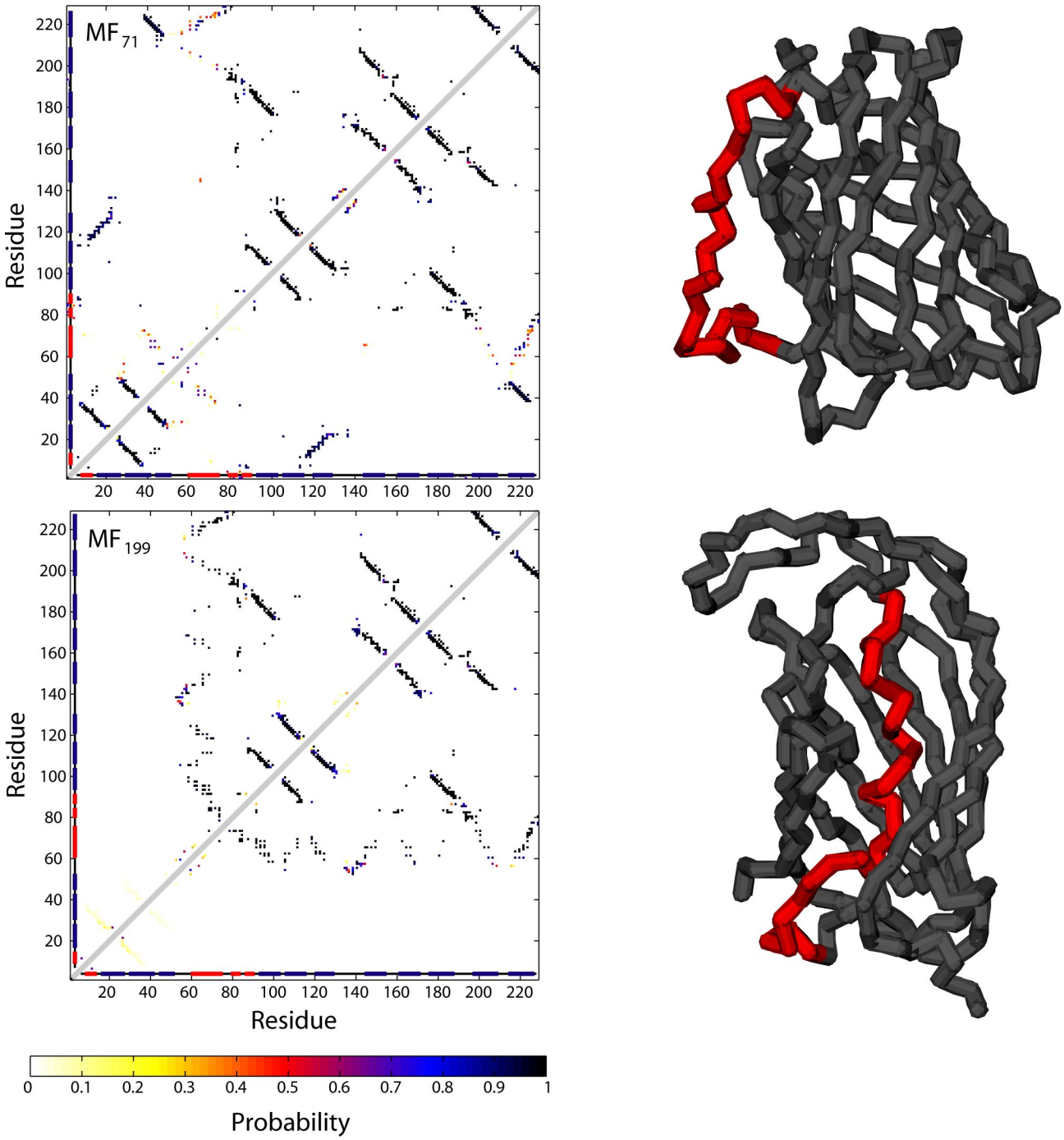

Fig. S2. Structure of major misfolded structures observed in kinetic trajectories. The left side of the image shows contact maps of misfolded structures, and the right half shows a representative structure. The α-helix has been colored red to aid the eye. Misfolded structure MF_{71} shows the β-barrel has formed, leaving the α-helix outside. Misfolded structure MF_{199} shows the N terminus ''knotted'' behind a loop on the lid of the barrel.

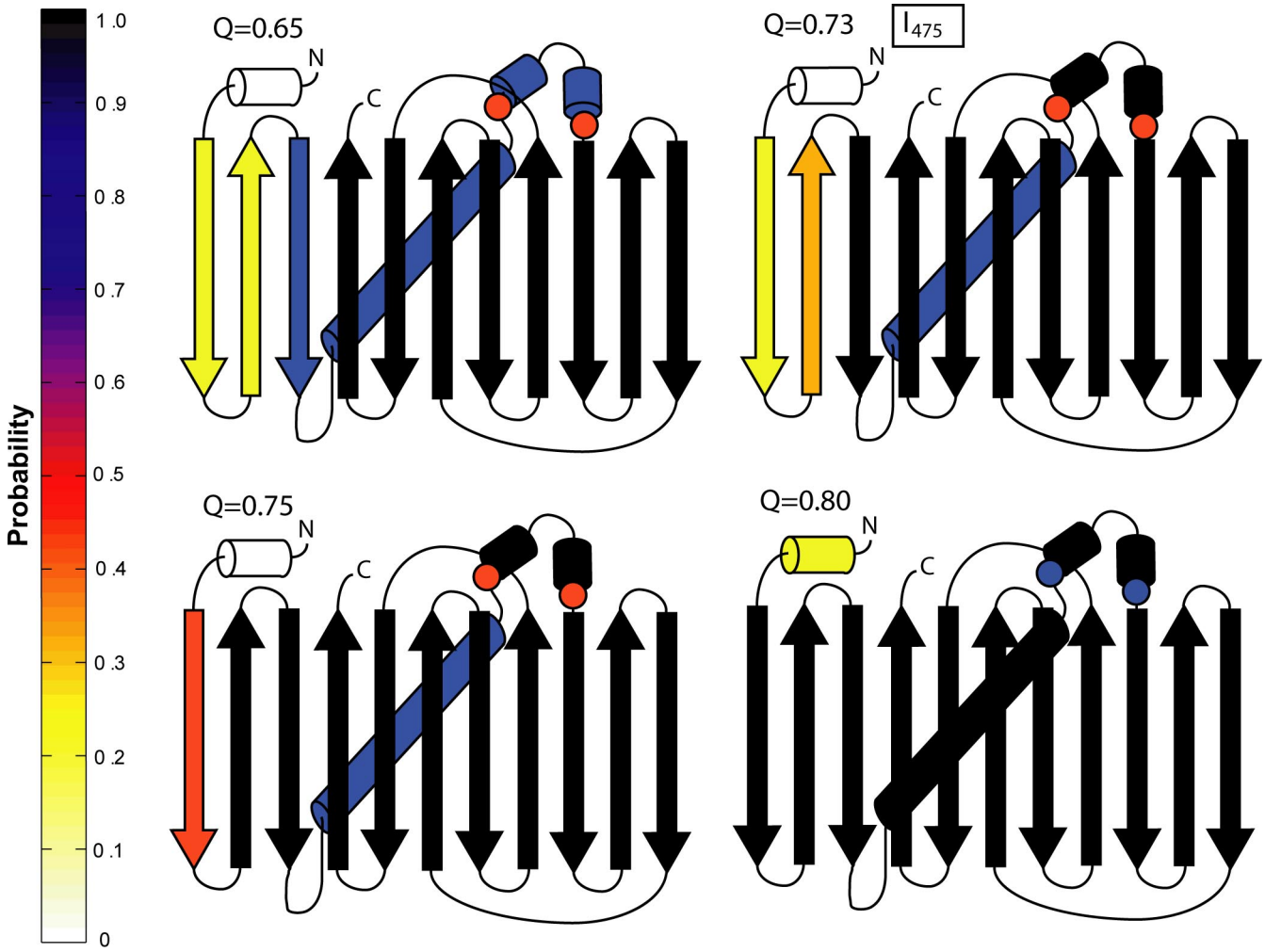

Fig. S3. Splay diagrams of thermodynamic intermediate I_{475} and Q values discussed in the text. The probability of a given secondary structure being made is shown as a color on the color map on the left. Thermodynamic intermediate I_{475} is missing two N-terminal β-strands and is similar to I_{K500}. Progression through the preintermediate (Q = 0.65), intermediate (Q = 0.73), transition (Q = 0.75), and posttransition (Q = 0.80) shows that the proline contacts discussed (circles) do not form until after the transition state. Contact maps used to create this figure are presented in Fig. S4.

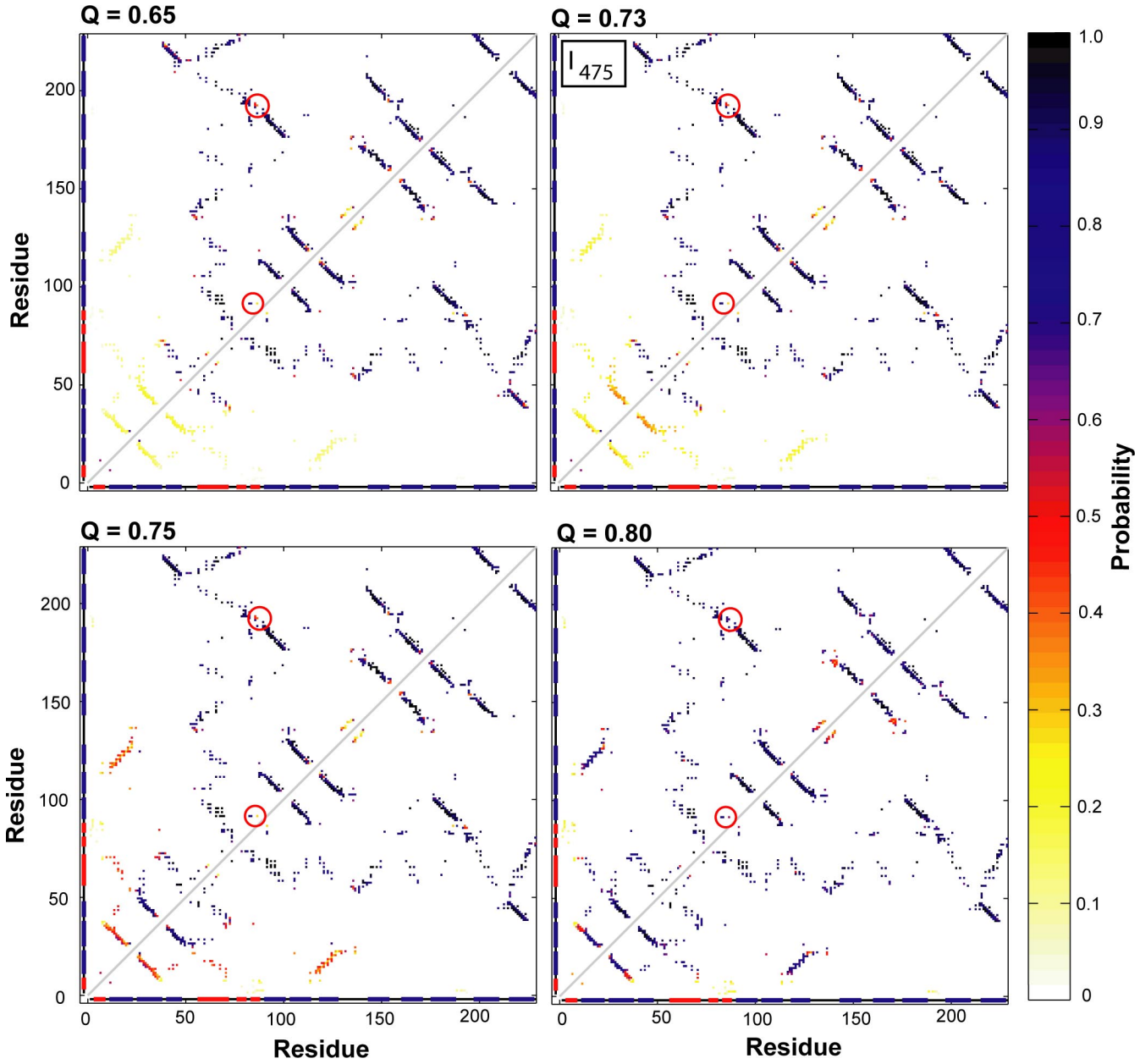

Fig. S4. Contact maps of thermodynamic intermediate I_{475} and Q values discussed. Red and blue bars along the axis show α-helices and β-strands, respectively. The probability of a given contact being made is shown as a color on the color map on the right. Thermodynamic intermediate I_{475} is missing two N-terminal β-strands and is similar to I_{K500}. Progression through the preintermediate (Q = 0.65), intermediate (Q = 0.73), transition (Q = 0.75), and posttransition (Q = 0.80) show that the proline contacts discussed (red circles) do not form until after the transition state. Intermediate label does not obscure any contacts.

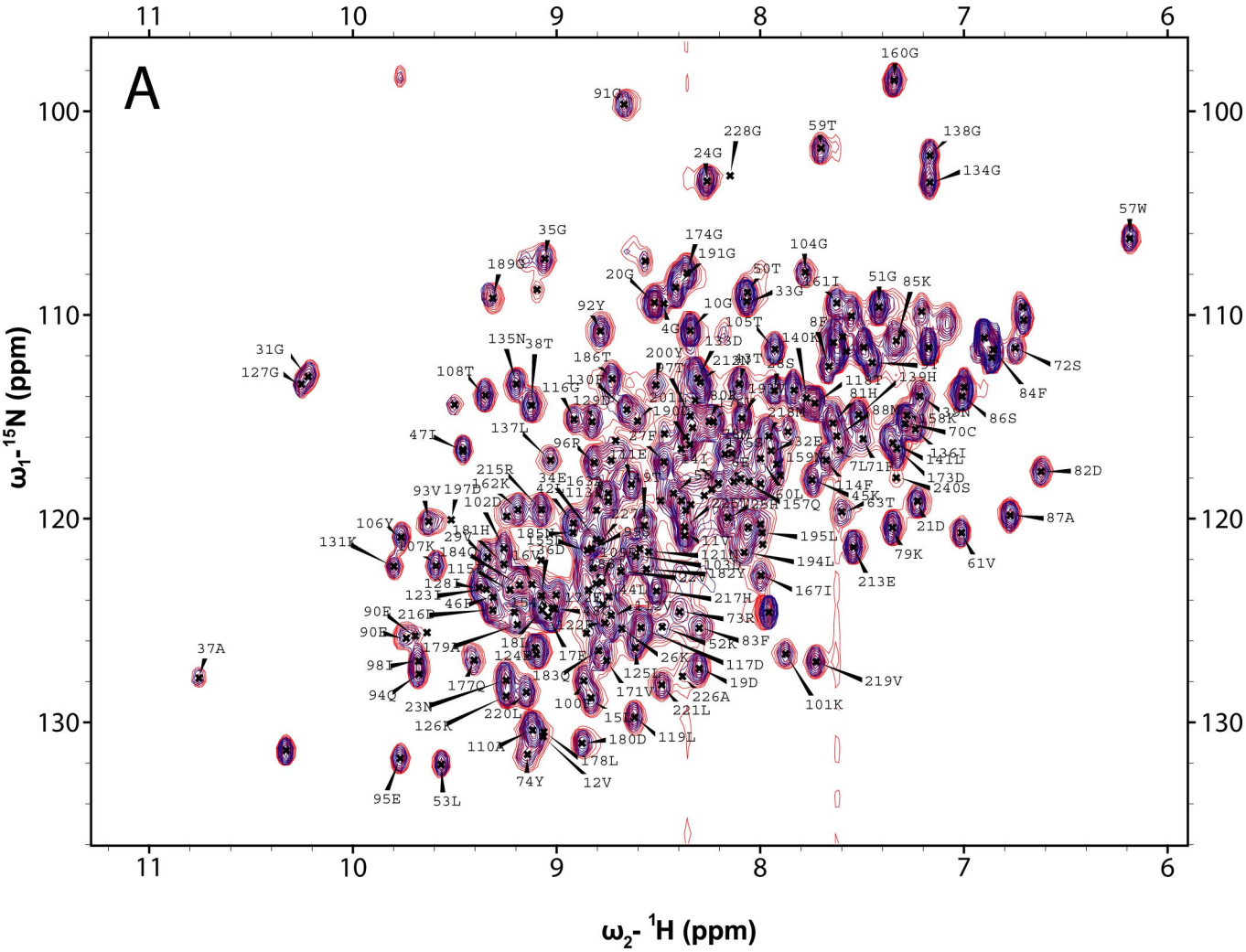

Fig. S5. ^{1}H-^{15}N HSQC spectra of native sfGFP (red) overlaid with trapped sfGFP (blue). The overall dispersion is nearly identical, except for three peaks: 90E, 189G, and an unassigned one at 7.99, 124.5.