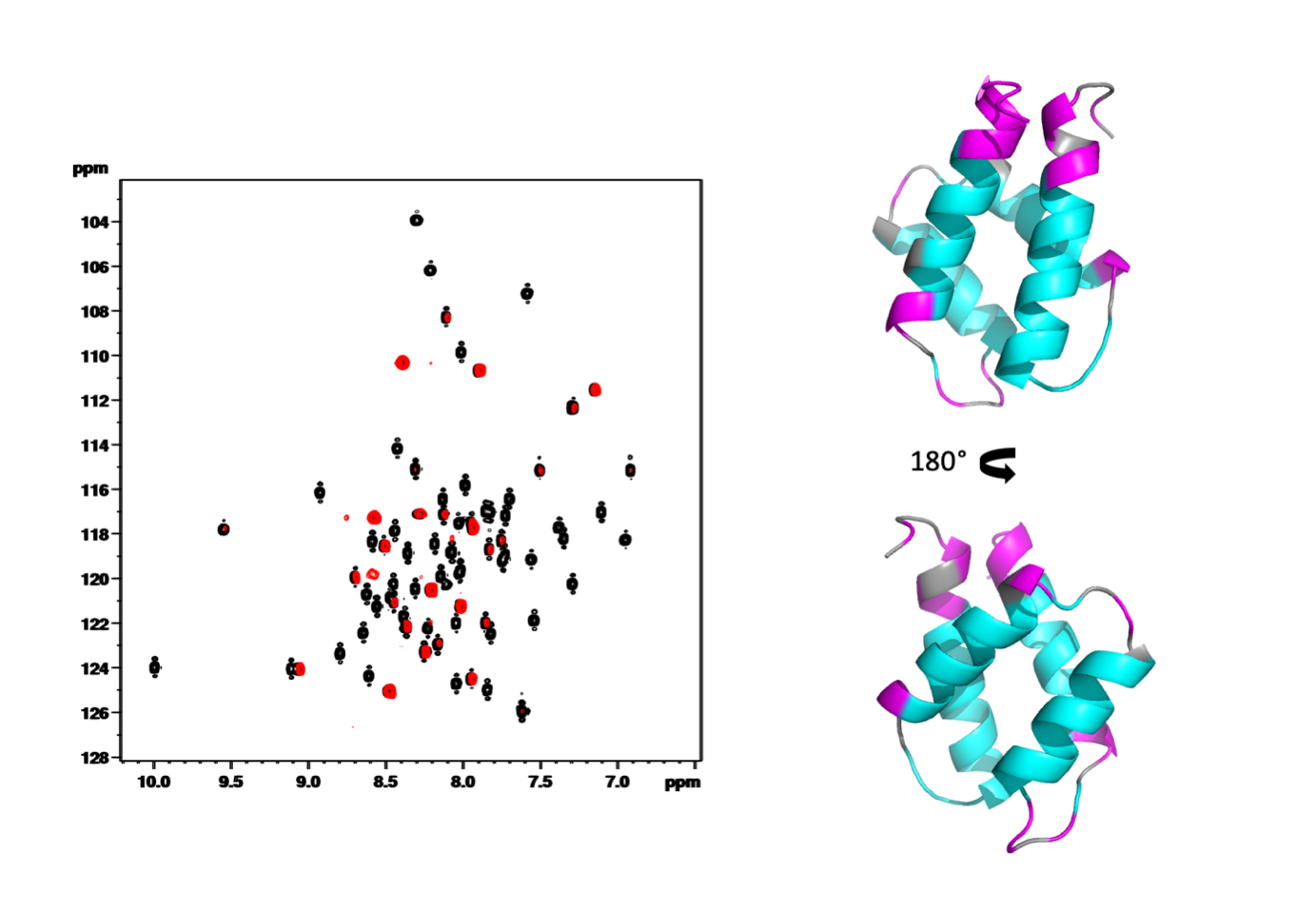
**Supplementary Material, Figure S2**

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**Figure S2.** Phase modulatedCLEANEX-PM experiment [Hwang et al., 1997, 1998] recorded on 15N-labeled GIPC1-GH2. (Left) Superimposition of a clean chemical exchange experiment (CLEANEX) recorded with 100 ms mixing time (red) and a reference HSQC spectra (black). Experiments were recorded with the same experimental conditions as in Figure 1. (Right) The residues exhibiting amide cross-peaks in the CLEANEX experiments were coloured in pink on the cartoon representation of the 3D solution structure of GIPC1-GH2 (two views rotated by 180°C). The corresponding amide protons are supposed to be solvent exposed and not involved in intra-molecular H-bonds. For CYANA modeling of the 3D structure, H-bonds restraints where introduced between amide donnors and carbonyle acceptors when the corresponding amide HSQC cross-peaks did not overlap with amide CLEANEX cross-peak, and when the corresponding residue was involved in a regular helical structure, as deduced from TALOS analysis.

Hwang, T. L., S. Mori, ., P. C. M. van Zijl. 1997. Application of phase-modulated CLEAN chemical EXchange spectroscopy

(CLEANEX-PM) to detect water-protein proton exchange and intermolecular NOEs. J. Am. Chem. Soc. 119:6203–6204.

Hwang, T. L., P. C. van Zijl, and S. Mori. 1998. Accurate quantitation of water-amide proton exchange rates using the phase-modulated CLEAN chemical EXchange (CLEANEX-PM) approach with a Fast-HSQC (FHSQC) detection scheme. J. Biomol. NMR. 11:221–226.