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Supplementary Information

Interaction of the N-terminal Domain of Human Islet Amyloid Polypeptide with Lipid Membrane: Effect of Cholesterol

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Content list:

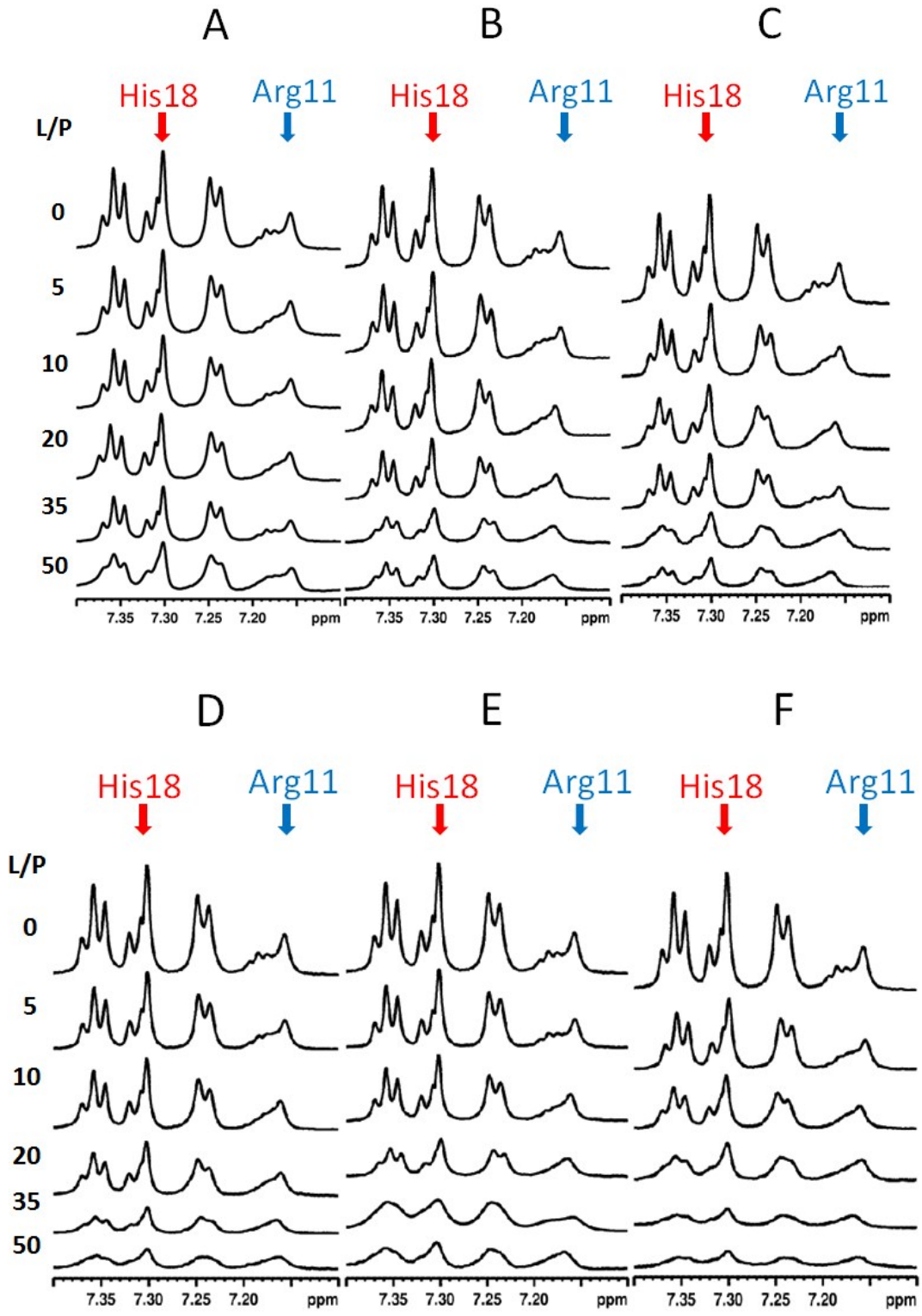

Fig. S1 ^{1}H NMR spectra of hIAPP$_{1-19}$ incorporated with DPPC SUVs at various lipid-to-peptide ratios (L/P) in the presence of Chol at the Chol percentages of 0% (A), 5% (B), 10% (C), 15% (D), 20% (E), and 30% (F). The resonance region of 7.0~7.4 ppm is displayed and the signals (H_{δ} on His18 and H_{η} on Arg11) used in the calculation of the dissociation constants are indicated by arrows.

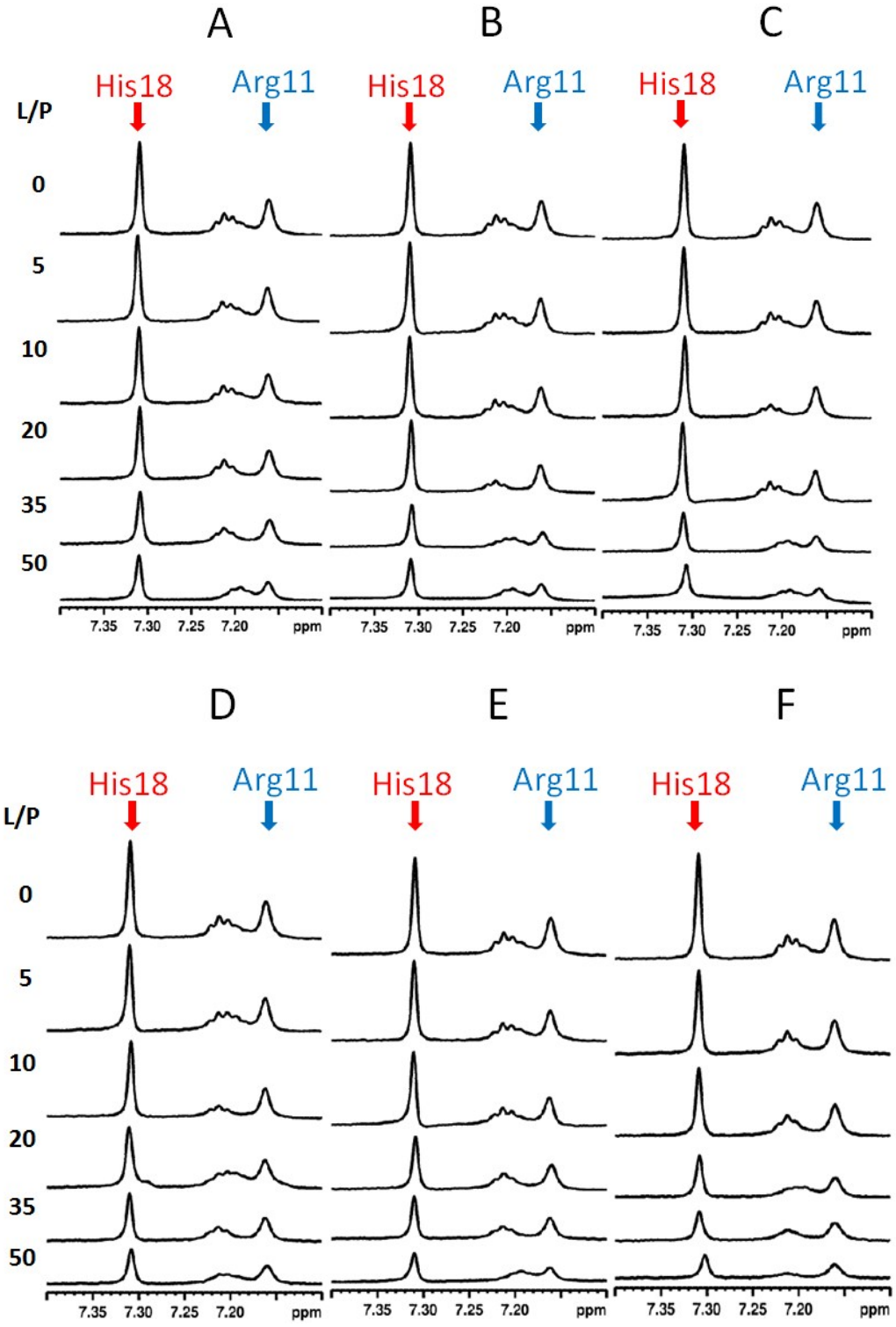

Fig. S2 ^{1}H NMR spectra of hIAPP$_{1\text{-}19/F15L}$ incorporated with DPPC SUVs at various lipid-to-peptide ratios (L/P) in the presence of Chol at the Chol percentages of 0% (A), 5% (B), 10% (C), 15% (D), 20% (E), and 30% (F). The resonance region of 7.0~7.4 ppm is displayed and the signals (H_{δ} on His18 and H_{η} on Arg11) used in the calculation of the dissociation constants are indicated by arrows.

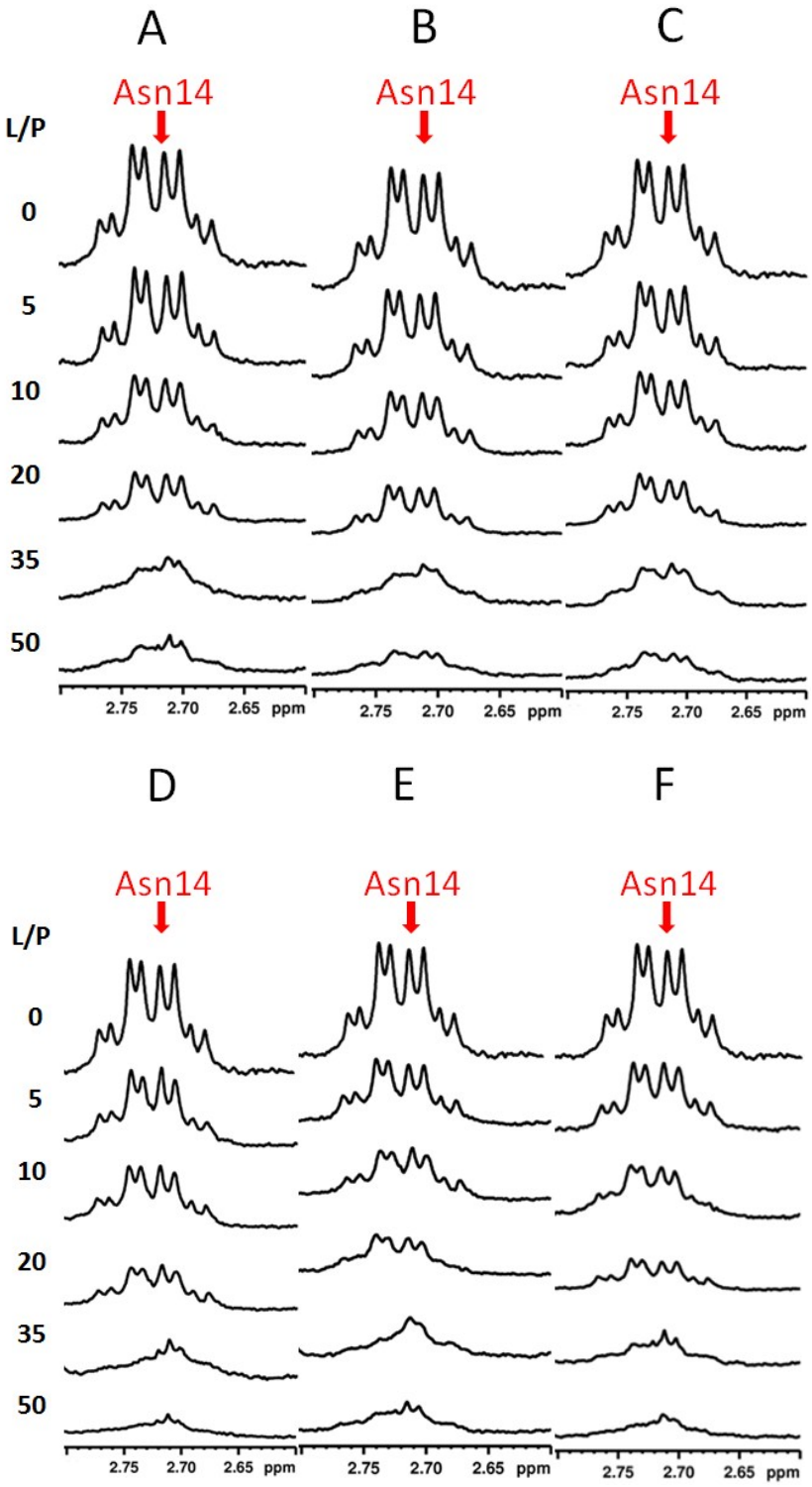

Fig. S3 ^{1}H NMR spectra of hIAPP$_{1-19}$ incorporated with DPPC SUVs at various lipid-to-peptide ratios (L/P) in the presence of Chol at the Chol percentages of 0% (A), 5% (B), 10% (C), 15% (D), 20% (E), and 30% (F). The signals in the region of 2.6~2.8 ppm, corresponding to the resonances of the H_{β} of Asn14, are displayed and used in the calculation of the dissociation constants.

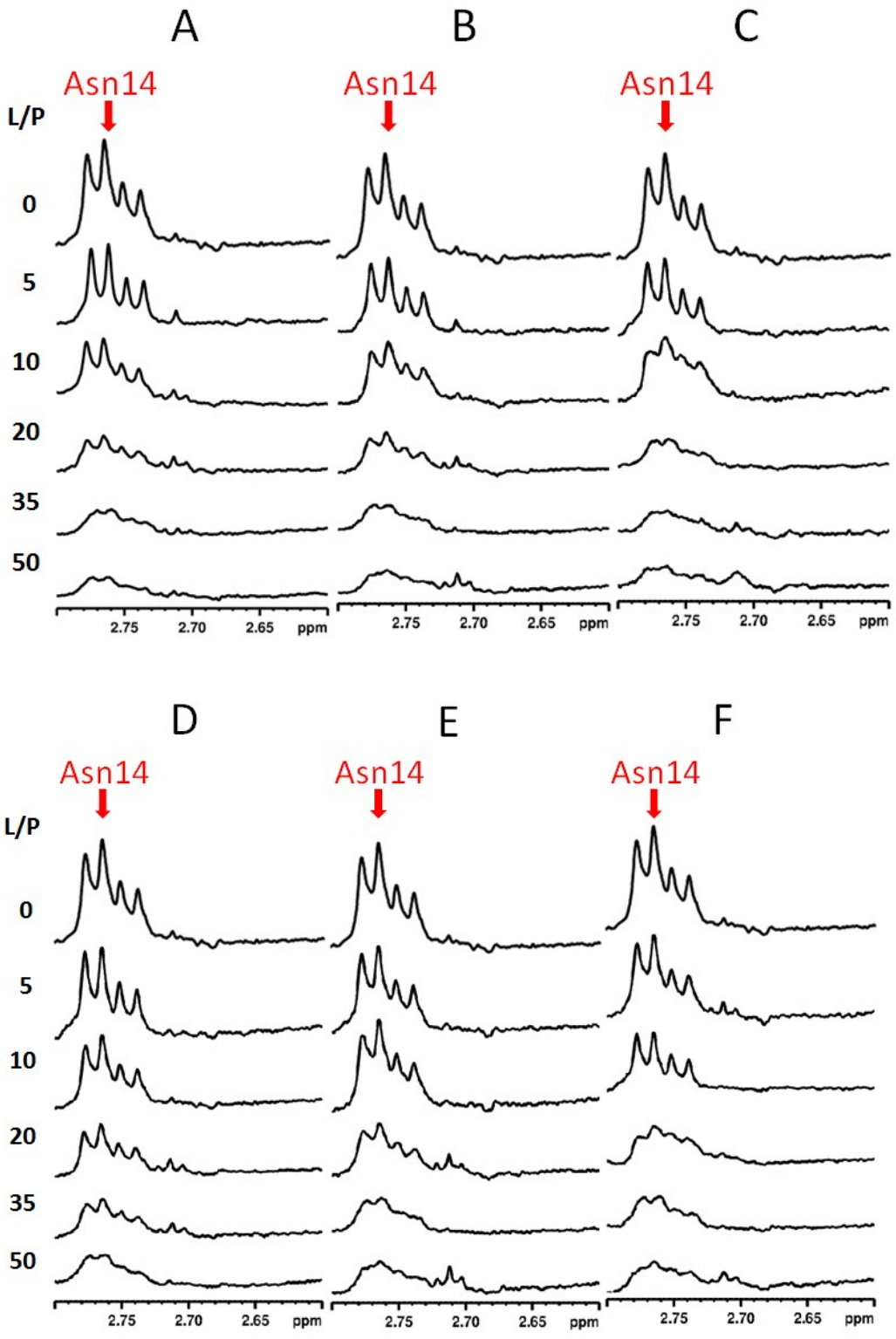

Fig. S4 ^{1}H NMR spectra of hIAPP$_{1-19/F15L}$ incorporated with DPPC SUVs at various lipid-to-peptide ratios (L/P) in the presence of Chol at the Chol percentages of 0% (A), 5% (B), 10% (C), 15% (D), 20% (E), and 30% (F). The signals in the region of 2.6~2.8 ppm, corresponding to the resonances of the H_{β} of Asn14, are displayed and used in the calculation of the dissociation constants.

Table S1 The secondary structure data of $hIAPP_{1-19}$ and $hIAPP_{1-19/F15L}$ in PBS at pH 7.4

Peptide	Secondary structure (%)			
	Helix	Strand	Turn	Unordered
$hIAPP_{1-19}$	15.9	19.8	15.1	49.2
$hIAPP_{1-19/F15L}$	15.3	21.3	14.9	48.5