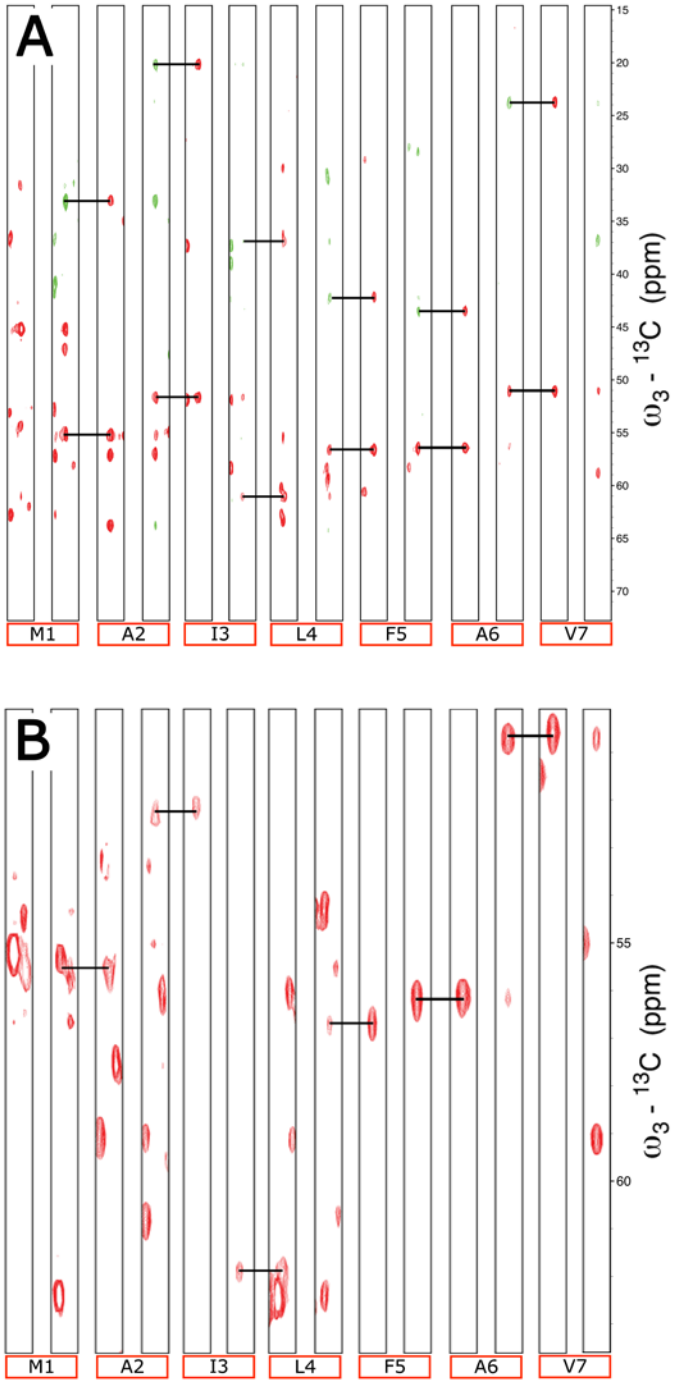
SUPPLEMENTAL DATA

Supplementary Figure S1. Backbone assignment of the LD in VAMP7(1-118) and VAMP7(1-180). *A*. ^{1}H-^{13}C strips of CBCA(CO)NH and HNCACB spectra are shown for the N-H chemical shifts corresponding to the first seven N-terminal amino acids of the VAMP7(1-118) construct. 14 strips are arranged in pairs (HN(CO)CACB on the left and HNCACB on the right) that are sequentially aligned. Each pair of strips was taken at the ^{15}N plane corresponding to the amide ^{15}N chemical shift of the residues indicated below the strips in red boxes. Black lines illustrate the connectivity between sequential Cβ (upper lines) and Cα (lower lines), that produced the assignment of the resonances for the VAMP7a(1-7) region. *B*. ^{1}H-^{13}C strips of HN(CO)CA and HNCA spectra are shown for the N-H chemical shifts corresponding to the first seven N-terminal amino acids of VAMP7(1-180). 14 strips are arranged in pairs (HN(CO)CA on the left and HNCA on the right) that are sequentially aligned. Each pair of strips was taken at the ^{15}N plane corresponding to the amide ^{15}N chemical shift of the residues indicated below the stripes in red boxes. Black lines illustrate the connectivity between sequential Cα.

Supplementary Figure S2. LD dimerization. *A*. Overlay of the ^{1}H, ^{15}N-HSQC spectra of 18 μM (black) and 450 μM (magenta) VAMP7(1-118). For the 18 uM spectrum (black), the HSQC experiment was set to select only for NH resonances. Top left corner: summary of ^{1}H and ^{15}N combined chemical shift changes in the VAMP7 LD induced by LD dimerization. The combined ^{1}H and ^{15}N chemical shift changes are defined as $\Delta ppm = [(\Delta\delta_{HN})^2 + (\Delta\delta_N \times \alpha_N)^2]^{1/2}$, where $\Delta\delta_{HN}$ and $\Delta\delta_N$ are chemical shift differences of amide proton and nitrogen chemical shifts of the VAMP7 LD in the two different concentrations. The scaling factor (α_N) used to normalize the ^{1}H and ^{15}N chemical shifts is 0.17. *B*. Elution profile of SEC-MALS of the isolated LD. Molar mass (red profile) and absorbance at 280 nm (black) (0.5 ml/min).

Supplementary figure S1



Supplementary figure S2