SUPPLEMENTARY MATERIALS

MATERIALS AND METHODS

More Details about the Synthesis and Purification of *WT-PLB and P-PLB*. The synthesis was repeated with lower and higher substituted Fmoc-L-Leu resin (resins with different amounts of Leu attached per resin bead) of 0.69 and 0.22 mmol/g and the yields after lyophylization were 5% and 9 %, respectively. Additionally, the lower substituted resin of 0.22 mmol/g of Fmoc-L-Leu PEG-PS was found to decrease the time needed to complete the synthesis to 9 days when compared to 3 weeks using the higher substituted resin. This modified synthesis can also be applied to the transmembrane segment of PLB and it can decrease the time of synthesis from 11 days to 3 days. A reverse-phase C_4 semi-preparative polymer supported column (259VHP82215) from Grace Vydac Inc. (Hesperia, CA) was used for HPLC purification. The column was equilibrated with 95% solvent A and 5% solvent B. Solvent A consisted of H_2O and 0.1% TFA and solvent B was 38% MeCN, 57% IPA, 5% H_2O, and 0.1% TFA. Elution of the peptide was achieved with a linear gradient to a final solvent composition of 80% solvent B.

FIGURES

Figure S1

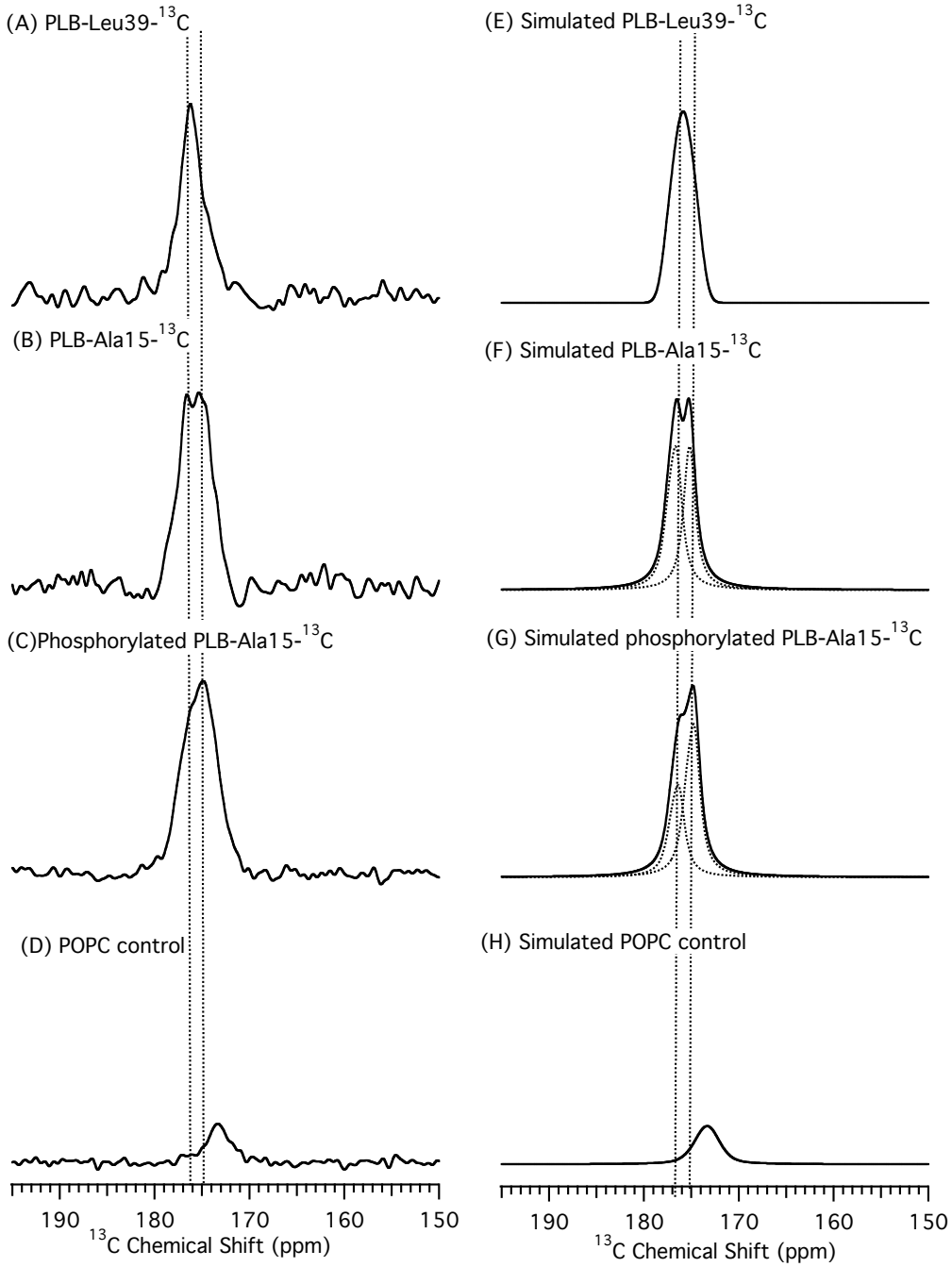

Figure S1. ^{13}C-CPMAS solid-state NMR spectra of ^{13}C=O labeled Leu39-PLB (A) and its simulated spectrum (E), Ala15-PLB (B) and its simulated spectrum (F), and Ala15-P-PLB (C) and its simulated spectrum (G), upon insertion into the POPC bilayers at -25 °C. At the same temperature (-25 °C), the ^{13}C-CPMAS solid-state NMR spectrum of the control POPC bilayers (without protein) is shown in (D) and its simulated spectrum (H). The simulated spectra ((F) and (G), solid lines) were generated by summation of its two components shown in dotted lines.