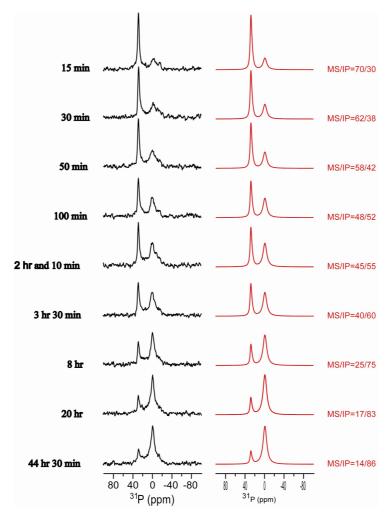
## **Supporting Information**

## A Solid-state NMR Study of the Kinetics of the Activity of an Antimicrobial Peptide, PG-1 on Lipid Membranes

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**Figure S1.**  $^{31}P$  SSNMR spectral changes of a peptide-lipid mixture with the P/L ratio of 1/20 and the theoretical curves simulated with the sum of SSNMR spectra of two phases. One is a mosaic spread of bilayer phase and the other is an isotropic phase. The values of MP/IP are the percentage ratios between a mosaic spread of bilayers and an isotropic phase. We used 10 degrees for a standard deviation of a gaussian distribution of bilayers in a mosaic spread of bilayers and 200 Å for the radius and  $3 \times 10^{-12}$  m²/s for the rotational diffusion coefficient of the vesicle in an isotropic phase.