



Supplementary Figure 5. Blue-shift of tryptophane fluorescence induced by liposomes. (A) Fluorescence spectra of endophilin A1 BAR domain mutants containing one tryptophane residue per monomer. Protein solution (140 $\mu\text{g/ml}$) was excited at 280 nm. Wild type, black; A66W, red; F202W, blue; buffer alone, dashed; liposome suspension (200 $\mu\text{g/ml}$), dotted. Each mutated residue exposes its side chain on the outer surface of the BAR-dimer and F202 is on the convex surface. The wild type has no tryptophane residue. The fluorescence peaks around 350 nm are entirely depend on the presence of tryptophane residues. (B) Protein solution (140 $\mu\text{g/ml}$) was excited at 280 nm. A66W, red; F202W, blue. Pale to dark lines represent the concentration of liposomes (0, 50, 100 and 200 $\mu\text{g/ml}$). The A66W mutant but not F202W mutant shows 10 nm shift of the fluorescence peak. Since liposomes quenched the fluorescence dose dependently, the fluorescence intensity increase accompanied by the blue-shift was not observed. However, reduction of the intensity is larger for F202W (35%) than for A66W (18%), suggesting the presence of an intensity increase in A66W mutant.