

Supplemental Materials

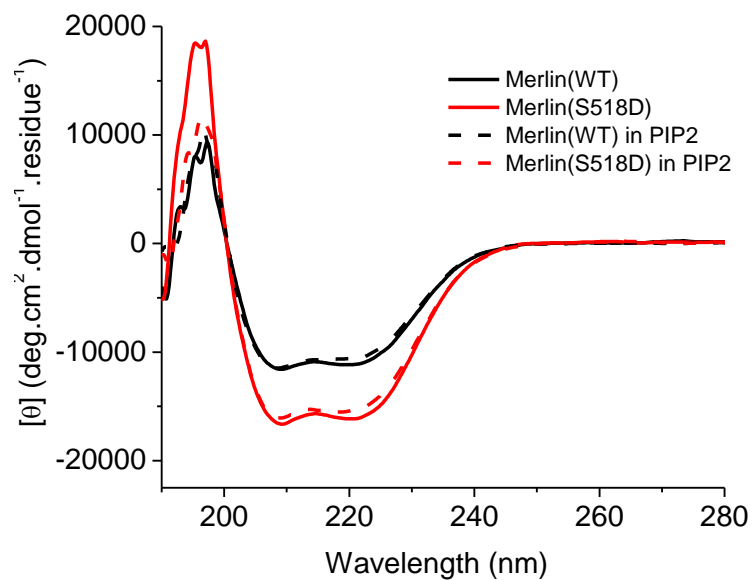


Figure S1. CD spectra of Merlin(wt) and Merlin(S518D) in solution and in PIP2. The protein concentrations are 0.182 mg/ml (2.6 nM) for Merlin(wt) and 0.189 mg/ml (2.7 nM) for Merlin(S518D). For PIP2 binding, the protein to lipid molar ratio is 1:50. The CD experiments were performed at 25°C.

Table S1

Results after deconvolution of CD spectra for different mutants of merlin.
Values in parenthesis show percent of secondary structure in the presence of PIP2 at protein:PIP2=1:50 molar ratio.

	α-Helix%	β-Sheet%	Turns%	disordered%
Merlin (WT)	42.00 (42.00)	11.00 (10.00)	19.00 (19.00)	27.00 (28.00)
Merlin (S518D)	64.00 (54.00)	9.00 (18.00)	21.00 (13.00)	8.00 (15.00)
Merlin (AR)	61.00 (59.00)	11.00 (15.00)	11.00 (14.00)	18.00 (13.00)
Merlin (ΔEL)	48.00 (47.00)	15.00 (15.00)	17.00 (18.00)	20.00 (21.00)

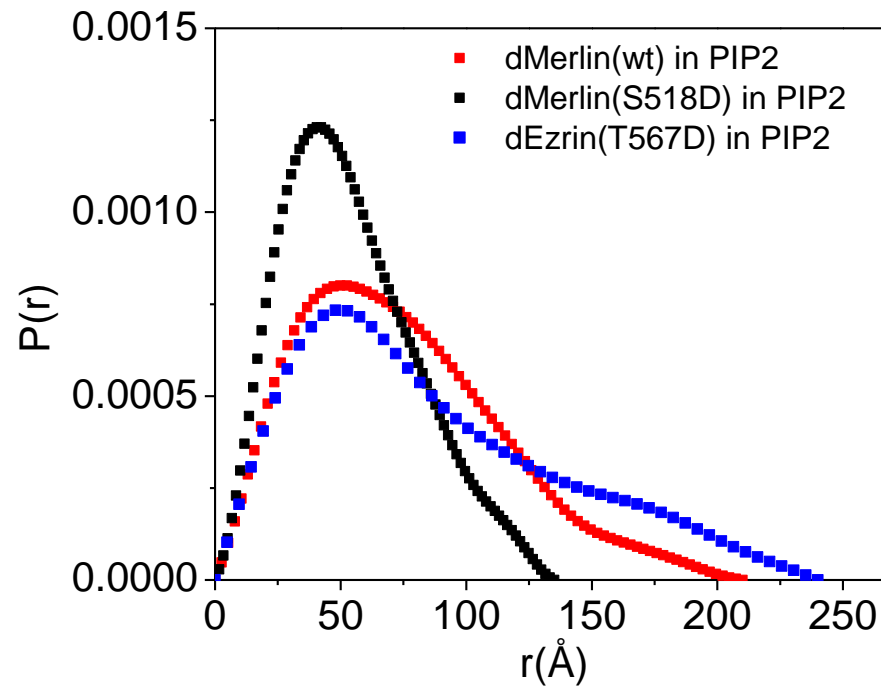


Figure S2. Comparing $P(r)$ function of dMerlin(wt), dMerlin(S518D), and dEzrin(T567D) in PIP2