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Supporting Information

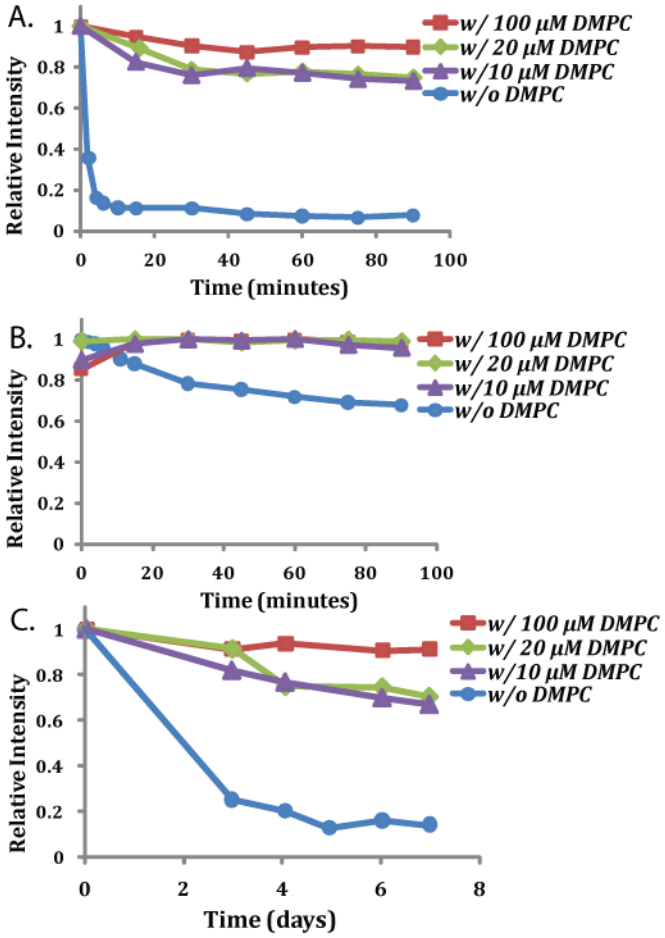

Figure S1. Degradation of curcumin in solution and in lipid DMPC vesicles. The breakdown of curcumin in phosphate buffer was measured by monitoring the absorbance of 10 μM curcumin at 424 nm with varying concentrations of lipid DMPC vesicles. At pH 7.8 curcumin was subject to rapid alkaline degradation, unless bound to DMPC vesicles (A). At pH 6.0, curcumin was more stable both in solution and in vesicles (B and C) indicating curcumin is not subject to degradation in the presence of bicelles for the duration of the NMR and DSC experiments (approximately 12 hours for both).

Table S1: Thermodynamic parameters of the main phase transition

DMPC

Mol % Curcumin	ΔH (kcal/mol)	ΔS (kcal/mol*K)	Transition Temp
0%	4.4	0.015	24.5
1%	3.5	0.012	24.3
3%	3.3	0.011	23.9
5%	3.2	0.011	24

DPPC

Mol % Curcumin	ΔH (kcal/mol)	ΔS (kcal/mol*K)	Transition Temp
0%	7.8	0.025	42.0
1%	8.6	0.027	41.7
2%	4.3	0.014	41.7
3%	4.1	0.013	41.4
4%	4.2	0.013	41.6