Supplementary Materials for

## Aggregation of Cationic Amphiphilic Block and Random Copoly(vinyl ether)s with Antimicrobial Activity

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Polymer	Copolymer Structure	$\mathrm{DP}^1$	MP <sub>IBVE</sub> <sup>1</sup> (mol %)	BC99.9 <sup>2</sup> (μg/mL)	HC50 (μg/mL)	C <sub>DPH<sup>4</sup></sub> (µg/mL)
B39 <sub>51</sub>	Block copolymer	39	51	3.1±0.0	> 1000	85
B3977		39	77	62.5±0.0	$(12.9\pm6.3\%)^{3}$ > 1000 $(22.8\pm8.5\%)^{3}$	80
R3853	Random copolymer	38	53	3.1±0.0	1.8±0.2	72
R3879		38	79	31.3±0.0	18.9±1.3	90

**Table S1.** Characterization, bactericidal activity and hydrophobic dye uptake behaviors for poly(IBVE-*co*-AEVE)s with different MP<sub>IBVES</sub>.

<sup>1</sup>See *Biomacromolecules* **2011**, *12*, 3581-3591.

<sup>2</sup>Determined in HEPES buffer against *E. coli*.

<sup>3</sup>Local minimum values of hemolysis induced by each polymer.

<sup>4</sup>Determined by dye uptake experiment in HEPES buffer.



**Figure S2.** Fluorescence intensity of DPH (50 nM) versus polymer concentrations of (A) B39<sub>51</sub> and R38<sub>53</sub>, and (B) B39<sub>77</sub> and R38<sub>79</sub>. The data points represent the average from duplicate measurements.