Supporting Information

Thioether-based poly(2-oxazoline)s: From optimized synthesis to advanced ROS-responsive nanomaterials

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Figure S1. ¹H NMR spectra of PEtOx, PEI, PMTMeOx, PMTEtOx, and PETMeOx in DMSO- $d_{6.}$



Figure S2. 2D HSQC-NMR spectra of a) PEI and b) PMTEtOx in CDCl₃.



Figure S3. Representative ¹H NMR (CDCl₃) of PEG-ONs.



Figure S4. MALDI-TOF spectra of PEG-ONs.

Polymer	DP (Target) ^a	DP (Measured) ^a	$M_w(\mathrm{kDa})^{\mathrm{c}}$	$M_n (\mathrm{kDa})^{\mathrm{c}}$	Т
PEG ₄₅ - b- PEtOx ₃₀	30	33	10.4	9.1	1.1
PEG ₄₅ - b - PEtOx ₆₀	60	58	13.9	12.1	1.1
PEG ₄₅ - <i>b</i> - PEtOx 100	100	71	20.5	17.3	1.2

 Table S1. Characteristics PEG-b-PEtOx copolymers.

^a DP of PEtOx block determined by ¹H NMR in CD₃OD. ^c Determined by SEC in DMAc/LiCl.



Figure S5. 2D HSQC-NMR spectrum of PEG₄₅-*b*-PMTMeOx₃₀ in CDCl₃.



Figure S6. SEC trace of PEI (DP 100).