

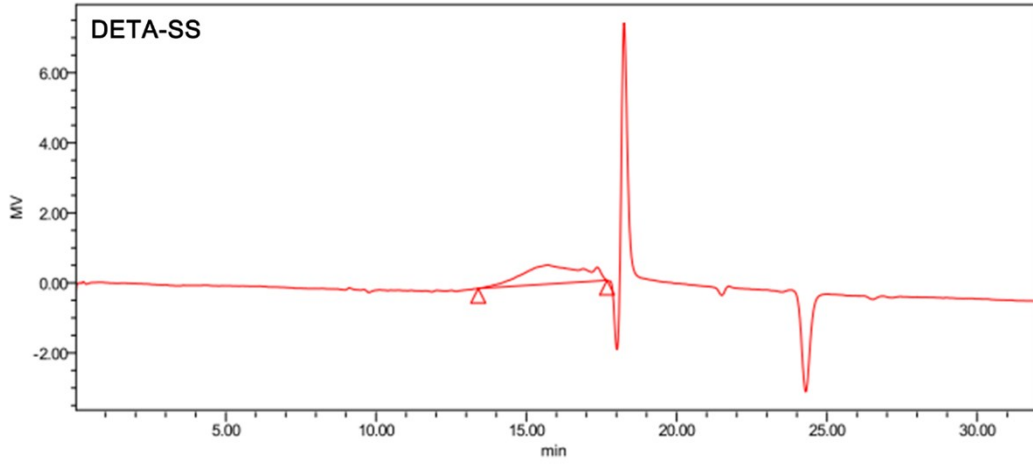
Electronic Supplementary Information

Bio-reducible polycations from ring-opening polymerization as potential gene delivery vehicles

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Xiao-Qi Yu*

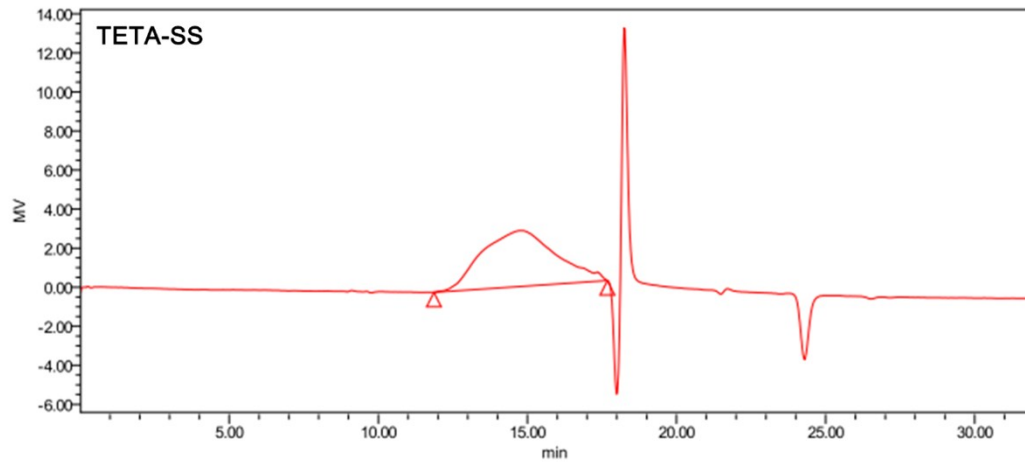
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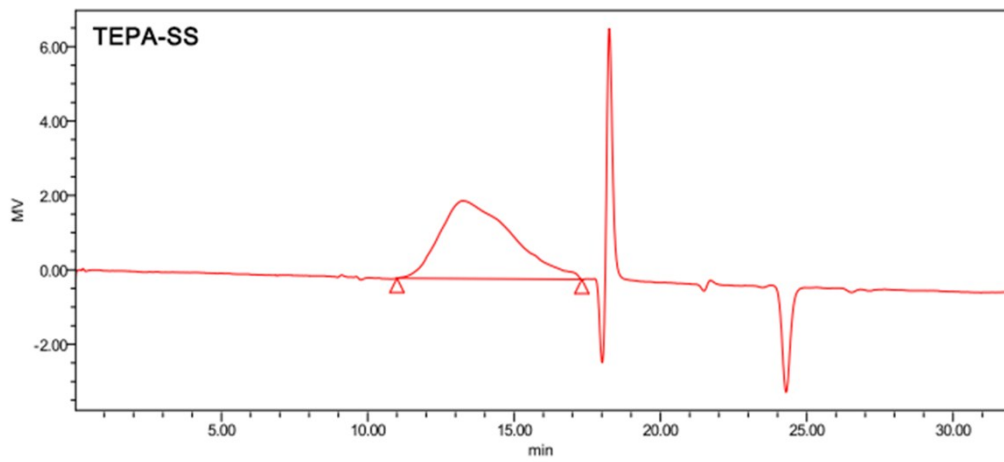
GPC results

	Mn (Da)	Mw (Da)	MP	Mz (Da)	Mz+1 (Da)	Dispersity index	MW 1 (Da)	MW 2 (Da)
1	1397	1965	1896	2651	3369	1.406362		



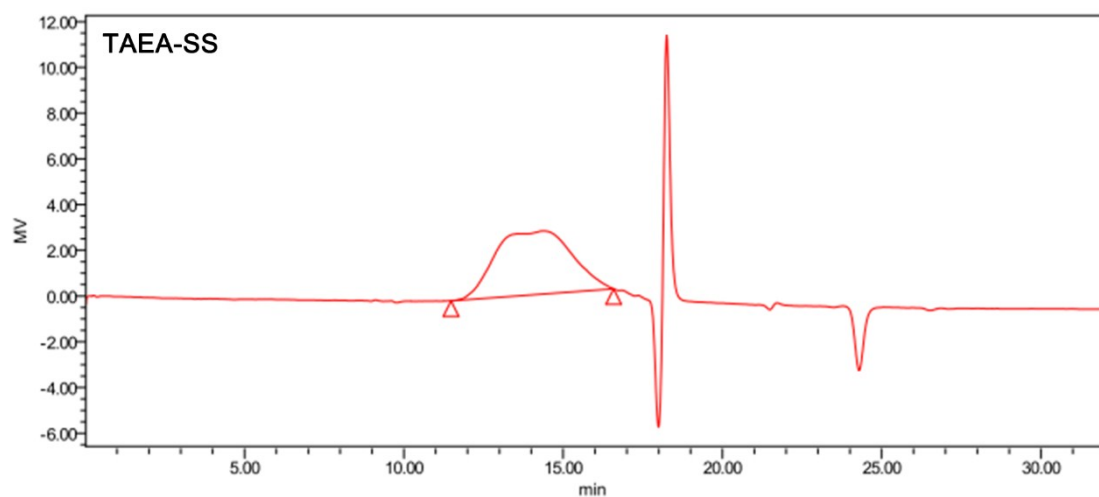
GPC results

	Mn (Da)	Mw (Da)	MP	Mz (Da)	Mz+1 (Da)	Dispersity index	MW 1 (Da)	MW 2 (Da)
1	2582	4342	3347	6857	10024	1.681554		



GPC results

	Mn (Da)	Mw (Da)	MP	Mz (Da)	Mz+1 (Da)	Dispersity index	MW 1 (Da)	MW 2 (Da)
1	4380	8835	9342	17167	30302	2.017424		



GPC results

	Mn (Da)	Mw (Da)	MP	Mz (Da)	Mz+1 (Da)	Dispersity index	MW 1 (Da)	MW 2 (Da)
1	4385	6715	4286	10372	15031	1.531552		

Fig. S1. GPC data of target polycations.

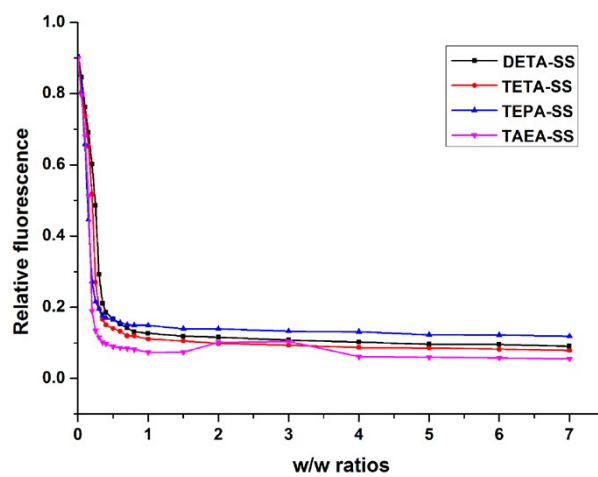


Fig. S2. Fluorescence quenching assay of EB/DNA by addition of polycations.

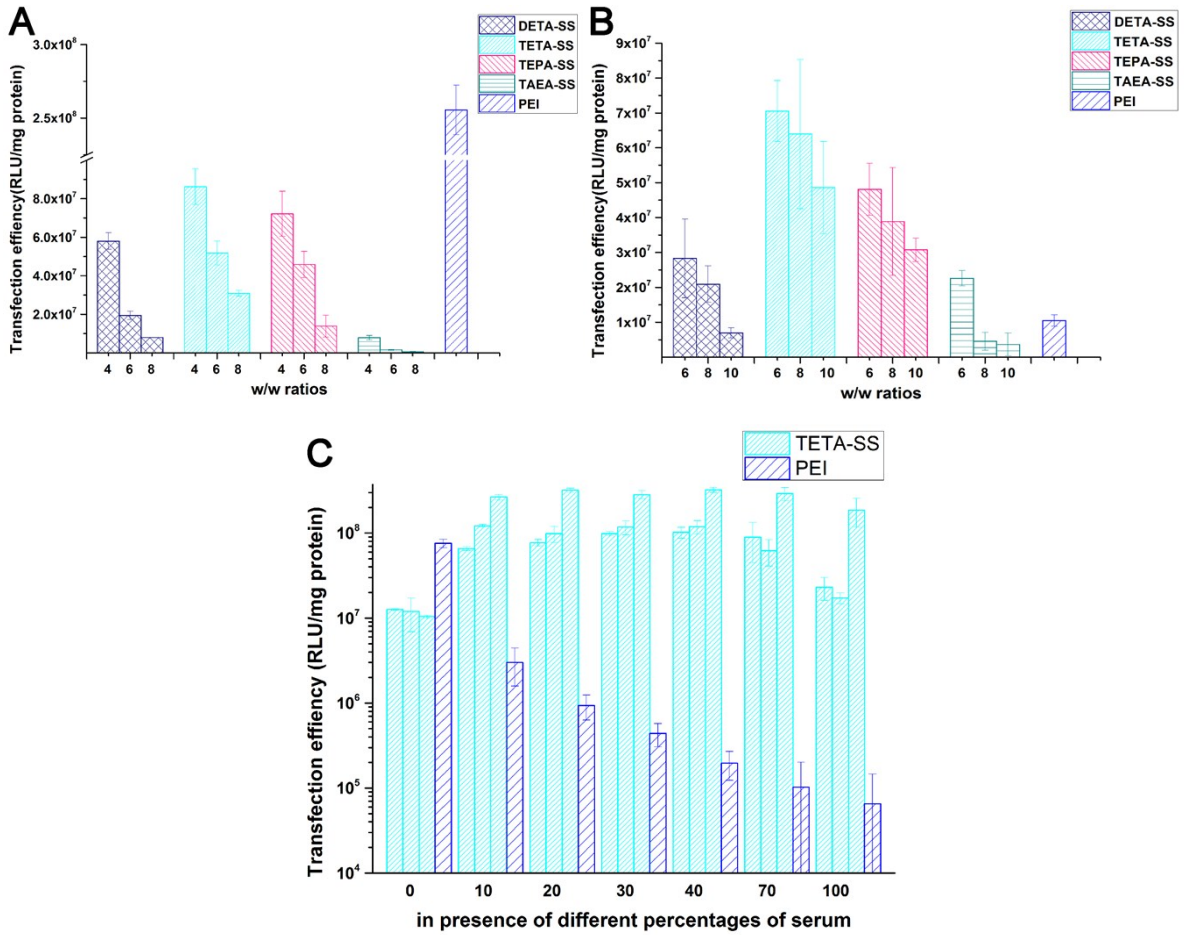
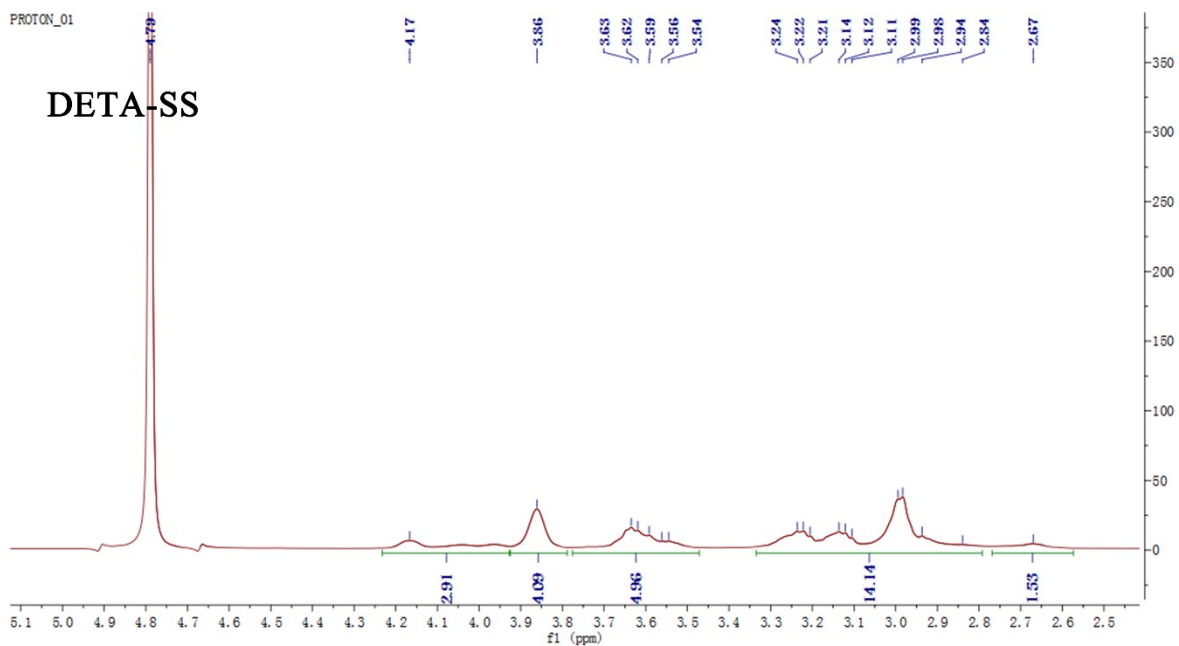
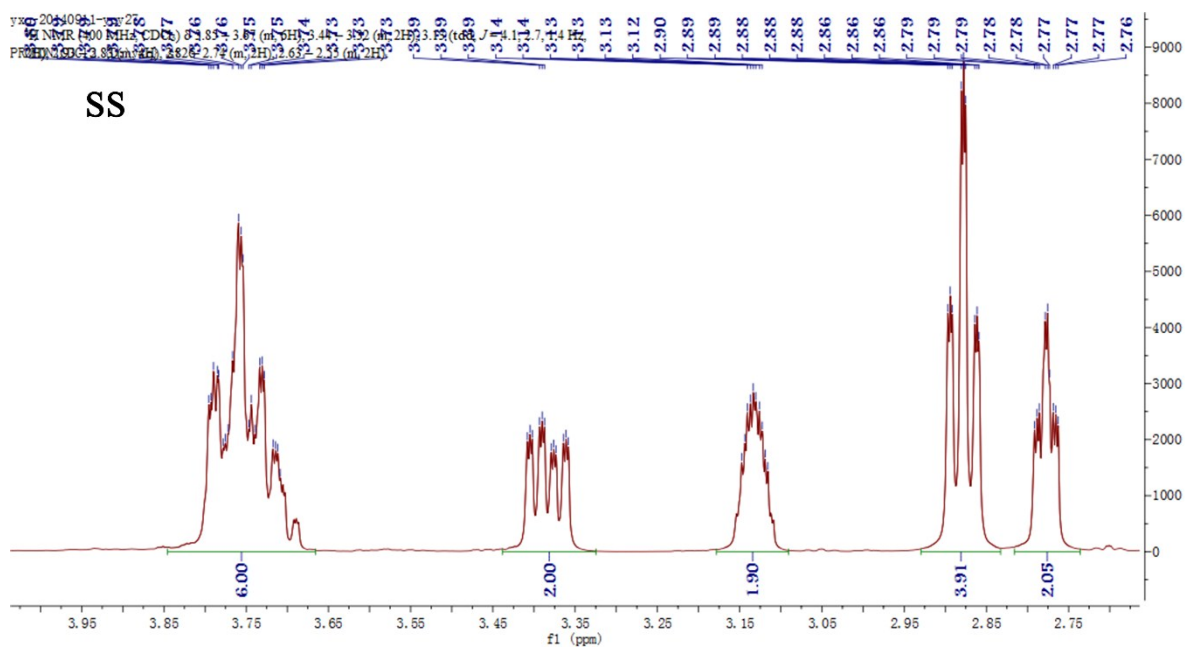
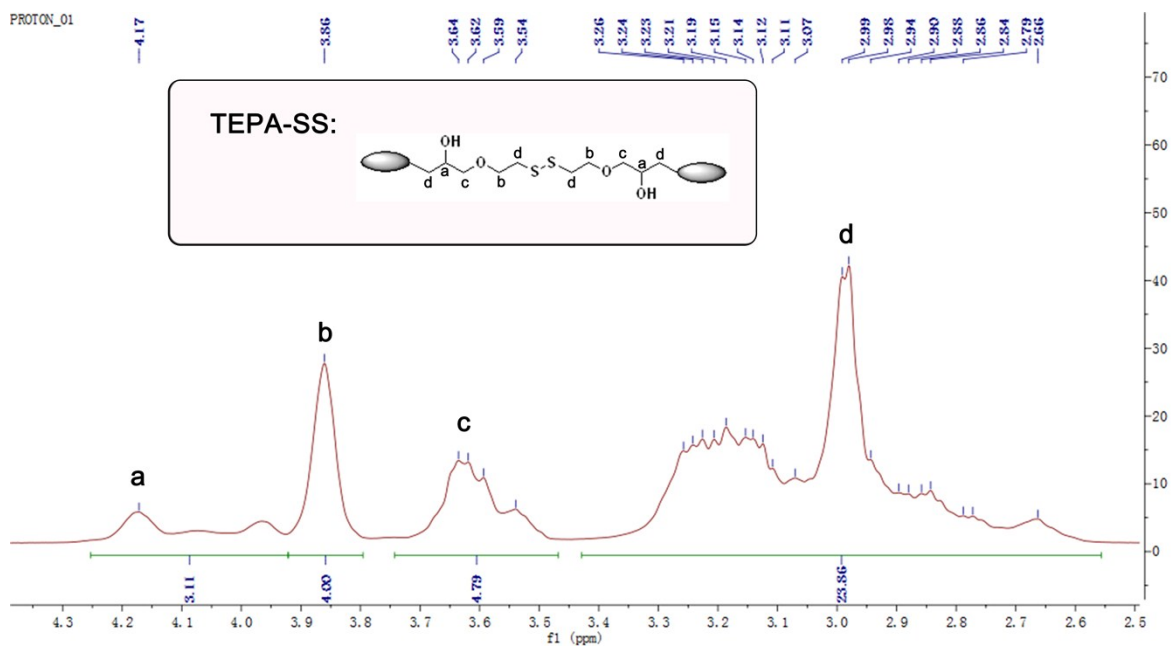
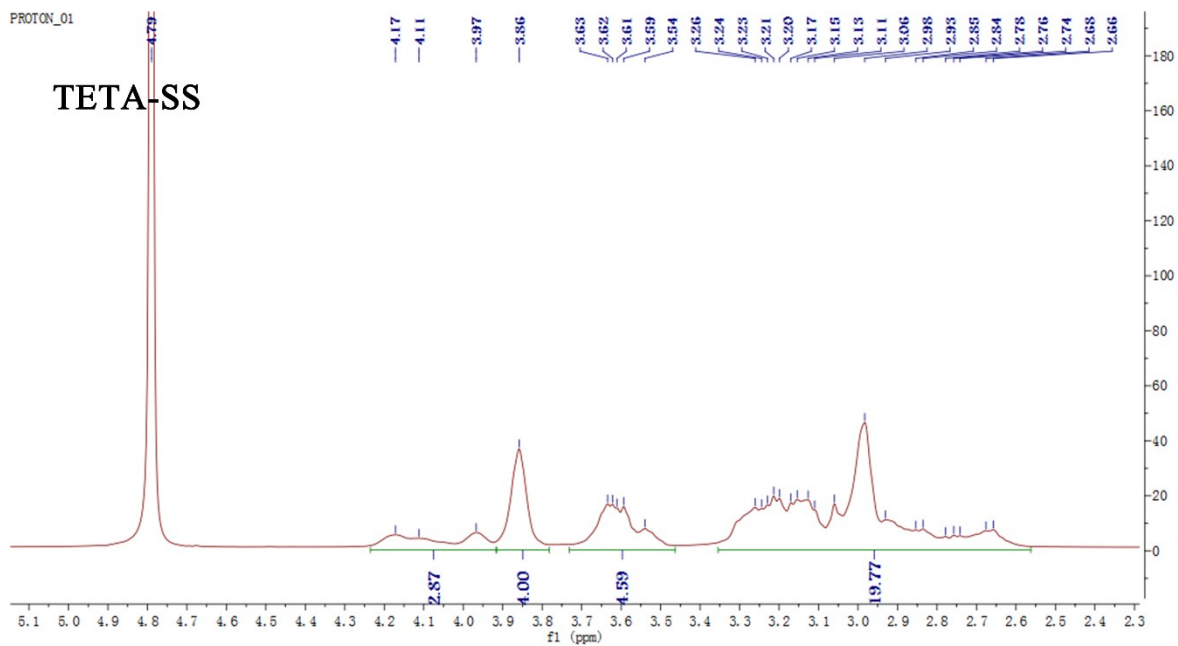


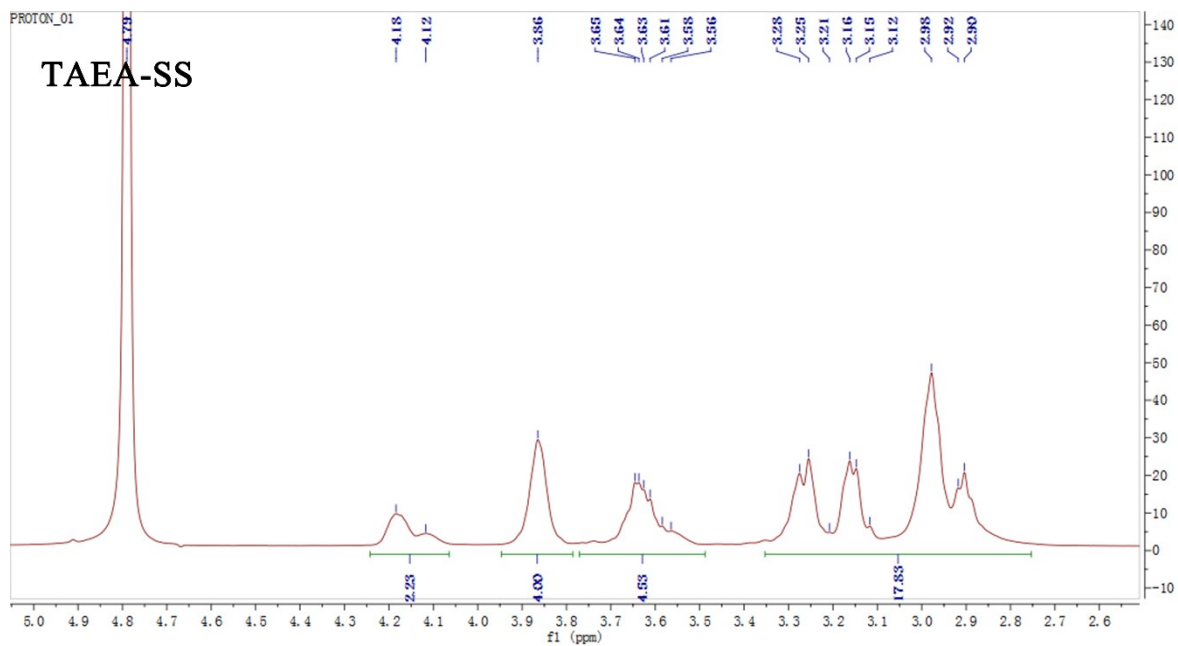
Fig. S3. Luciferase gene expression transfected by polyplexes at different weight ratios without (A) and with (B) the presence of 10% serum in comparison with 25 KDa PEI in HEK293 cells. (C) The effect of serum concentration on the TE of **TETA-SS** (weight ratio = 4, 6 and 8) and PEI. The weight ratio for PEI is 1.4. Data represent mean \pm SD (n=3).

¹H NMR spectra

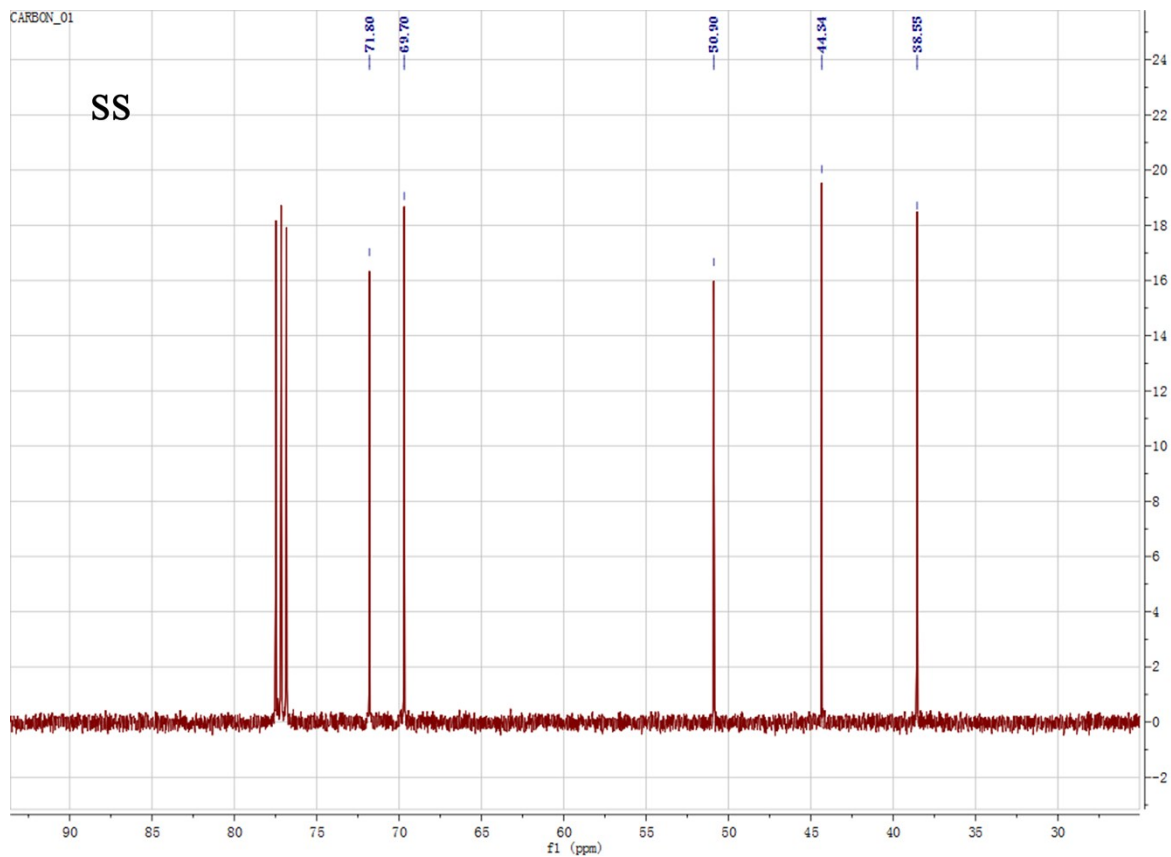




For linear (1 : 1) polycation, theoretical numbers of H: b, 4H; d, 24H (16H on TEPA and 8H on SS).



¹³C NMR spectrum of SS



HR-MS spectrum of SS

