Supporting Information

Highly Effective Synthetic Polymer-Based Blockers of Non-Specific Interactions in Immunochemical Analyses

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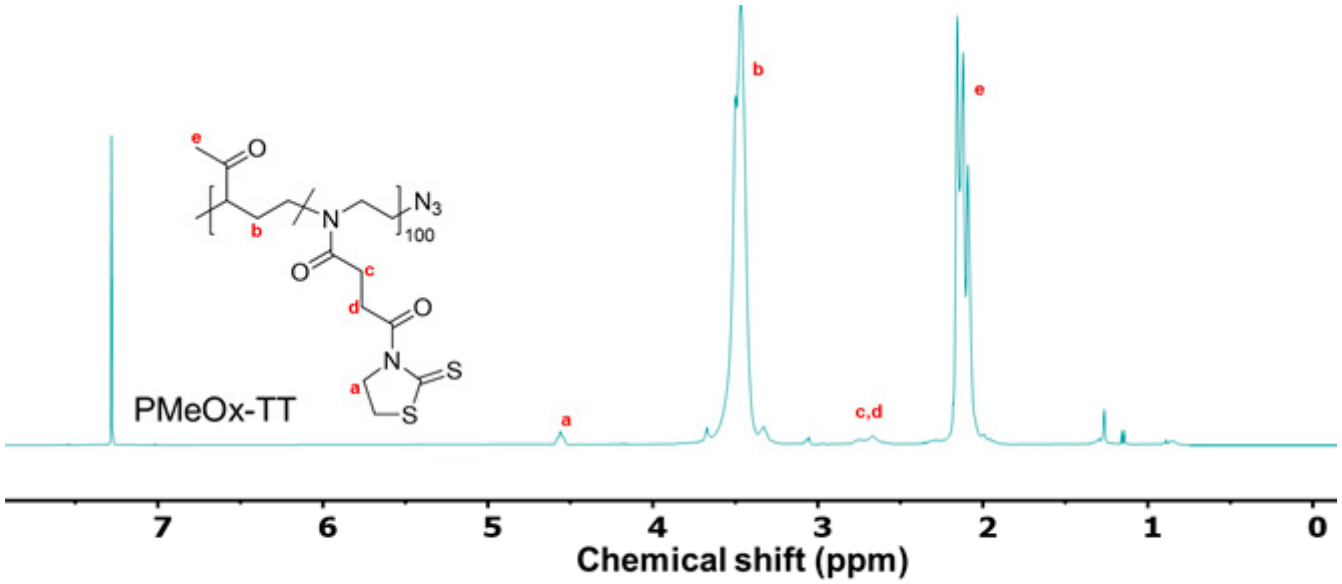

Figure S1. 1H NMR spectra of PMeOx-TT (P8) polymeric precursors. Measured in $CDCl_3$.

Table S1. Results of competitive assay. First, polymers with one terminal hydrophobic anchor, polymers C1, C2 and C3, were coated to the PS surface and BSA with increasing concentration was used to detach the polymer coating.

	C1, 1 mg/L					C2, 1 mg/L					C3, 1 mg/L				
	BSA mg/L														
	0	5	25	50	100	0	5	25	50	100	0	5	25	50	100
	OD_{450}														
	3.028	2.950	1.451	0.948	0.456	2.988	2.615	1.473	1.125	0.706	3.229	2.908	1.696	1.042	0.727
	3.217	2.684	1.623	1.049	0.559	2.795	2.622	1.740	1.128	0.733	3.185	2.796	1.646	1.087	0.812
	3.123	2.588	1.659	1.132	0.634	3.053	2.432	1.830	1.261	0.784	3.054	2.651	1.594	1.116	0.825
	2.965	2.822	1.745	1.193	0.743	2.777	2.791	1.697	1.213	0.827	2.895	2.789	1.734	1.210	0.900
	3.219	2.798	1.796	1.170	0.683	3.005	2.550	1.891	1.424	0.756	3.103	2.712	1.839	1.173	0.897
	3.234	2.757	1.606	1.151	0.728	2.690	2.642	1.731	1.313	0.817	3.248	2.639	1.870	1.167	0.922
	3.039	2.770	1.802	1.092	0.694	2.852	2.677	1.805	1.316	0.718	3.049	2.629	1.983	1.290	0.865
	3.207	2.670	1.782	1.212	0.652	2.852	2.634	1.662	1.120	0.990	3.247	2.819	1.846	1.211	0.679
mean	3.129	2.755	1.683	1.118	0.644	2.876	2.620	1.728	1.237	0.791	3.126	2.739	1.776	1.162	0.828
C.V.,%	*3.37*	*4.00*	*7.25*	*7.76*	*14.81*	*4.41*	*3.91*	*7.37*	*8.97*	*11.58*	*3.99*	*3.62*	*7.34*	*6.77*	*10.49*
Ratio	1.00	0.88	0.54	0.36	0.21	1.00	0.91	0.60	0.43	0.28	1.00	0.88	0.57	0.37	0.26

Table S2. Results of competitive assay. First, polymers with one multiple presentation of hydrophobic anchor, polymers C7, C8 and C9, were coated to the PS surface and BSA with increasing concentration was used to detach the polymer coating.

	C7, 0.1 mg/L					**C8, 0.1 mg/L**					**C9, 0.1 mg/L**				
	BSA mg/L														
	0	**5**	**25**	**50**	**100**	**0**	**5**	**25**	**50**	**100**	**0**	**5**	**25**	**50**	**100**
	OD_{450}														
	2.758	2.461	1.431	1.007	0.740	2.486	2.279	1.038	0.843	0.596	2.421	1.145	0.948	0.843	0.809
	2.780	2.304	1.338	1.007	0.709	2.386	2.022	0.978	0.833	0.593	2.227	1.467	0.835	0.816	0.758
	2.733	2.365	1.371	1.030	0.744	2.486	2.047	0.932	0.761	0.580	2.233	1.424	0.869	0.832	0.788
	2.635	2.339	1.495	1.053	0.768	2.433	2.252	1.131	0.782	0.648	2.383	1.517	0.961	0.901	0.785
	2.755	2.366	1.463	1.066	0.762	2.578	1.984	0.979	0.847	0.574	2.284	1.493	0.945	0.895	0.841
	2.743	2.412	1.462	1.018	0.780	2.650	2.151	1.108	0.809	0.618	2.392	1.475	0.947	0.864	0.778
	2.852	2.450	1.482	1.071	0.837	2.664	1.953	1.163	0.746	0.617	2.284	1.562	0.656	0.882	0.760
	2.835	2.388	1.479	1.061	0.842	2.638	2.197	1.070	0.585	0.641	2.323	1.554	0.922	0.838	0.825
mean	**2.761**	**2.386**	**1.440**	**1.039**	**0.773**	**2.540**	**2.110**	**1.050**	**0.776**	**0.608**	**2.318**	**1.454**	**0.885**	**0.859**	**0.793**
C.V.,%	***2.41***	***2.25***	***3.94***	***2.56***	***6.02***	***4.20***	***5.95***	***7.83***	***11.09***	***4.51***	***3.19***	***9.16***	***11.60***	***3.65***	***3.76***
Ratio	**1.00**	**0.86**	**0.50**	**0.38**	**0.28**	**1.00**	**0.83**	**0.46**	**0.31**	**0.24**	**1.00**	**0.63**	**0.38**	**0.37**	**0.34**