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## **Supplemental Information**

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**Complex but Not Transfect siRNA**

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# Size Matters: Arginine-Derived Peptides Targeting the PSMA Receptor can Efficiently Complex but not Transfect siRNA

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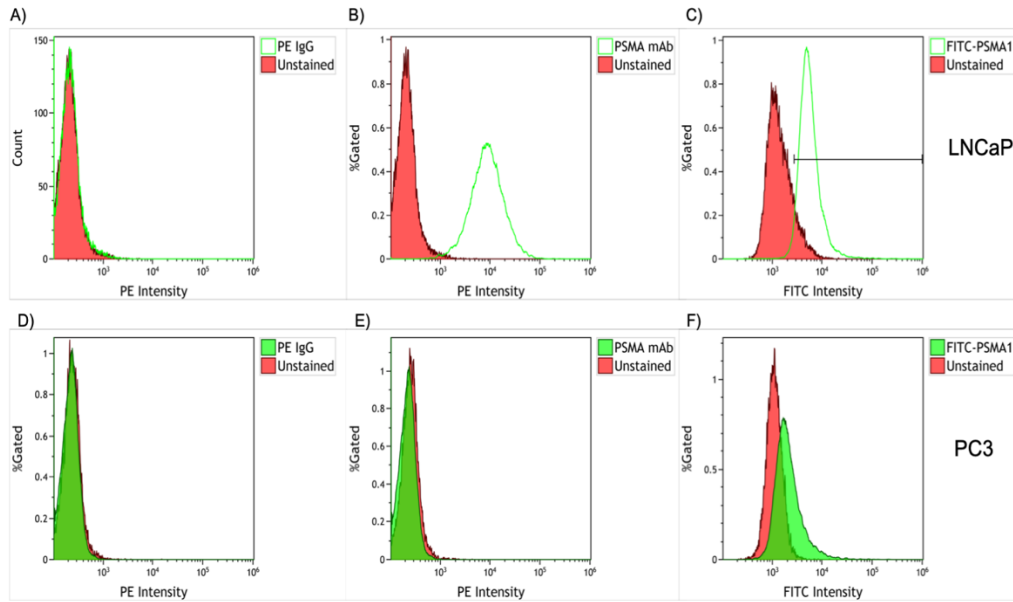
## Supplementary Information

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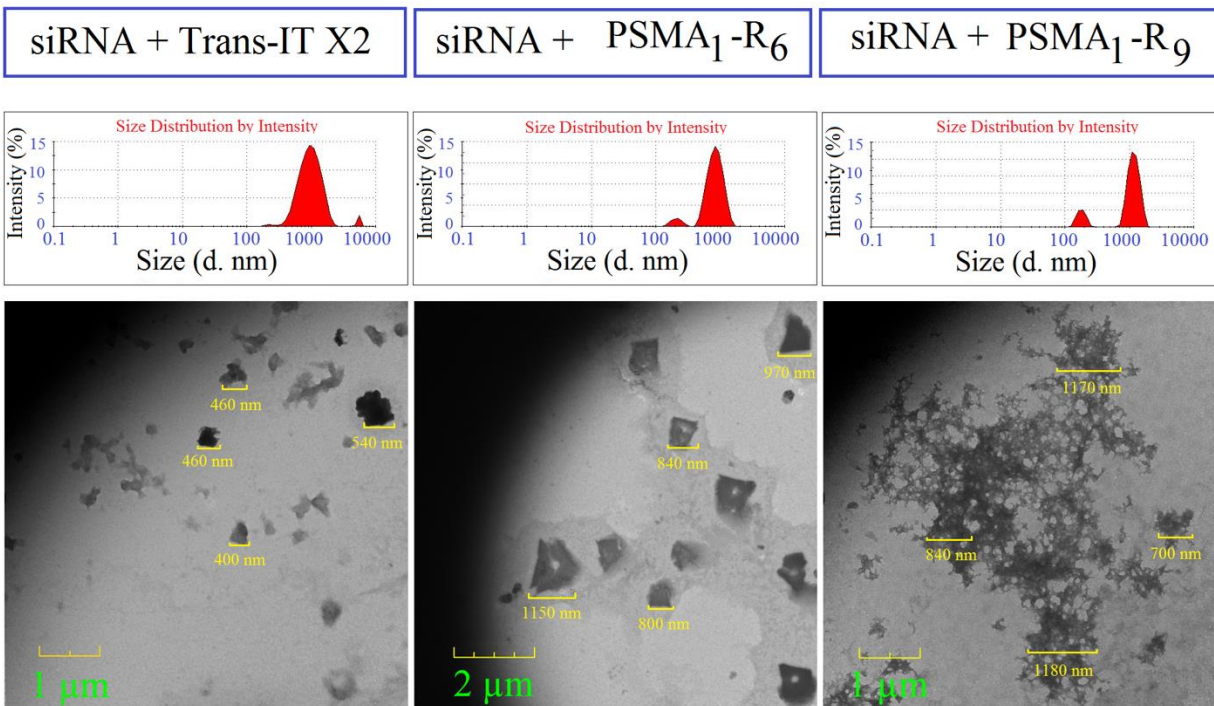


**Supplementary Figure S1.** Flow cytometric analysis of FITC-PSMA-1 binding to LNCaP and PC3 PCa cell lines. Binding was measured after 15 minutes for the PSMA mAb (B and E) or 60 minutes for the peptide (C and f).

Sample	Effective Diameter (nm)	Zeta Potential (mV)
siRNA : Trans-IT X2	411 ± 55	0.77 ± 1.24
	456 ± 60	
siRNA: PSMA-1-R6	1450 ± 332	-2.16 ± 0.39
	878 ± 40	
siRNA: PSMA-1-R9	2135 ± 357	-5.88 ± 0.25
	1041 ± 222	

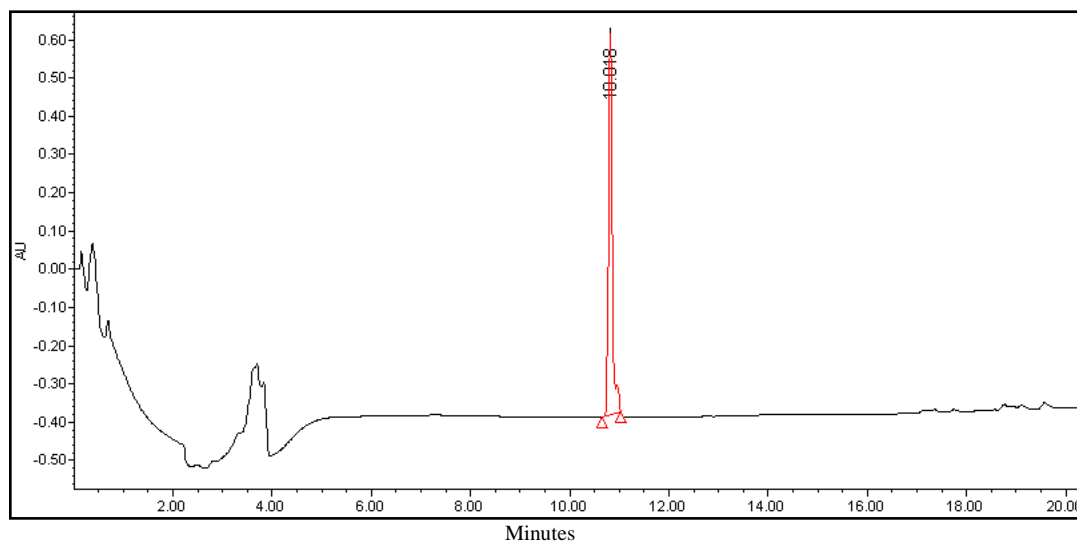
**Supplementary Table 2.** Size and Zeta potential analysis by DLS of the siRNA: PSMA-1 complexes compared to that of an siRNA: Trans-IT X2 transfection reagent complex. The top

diameter represents the relative aggregate sizes while the bottom represents individual particle sizes



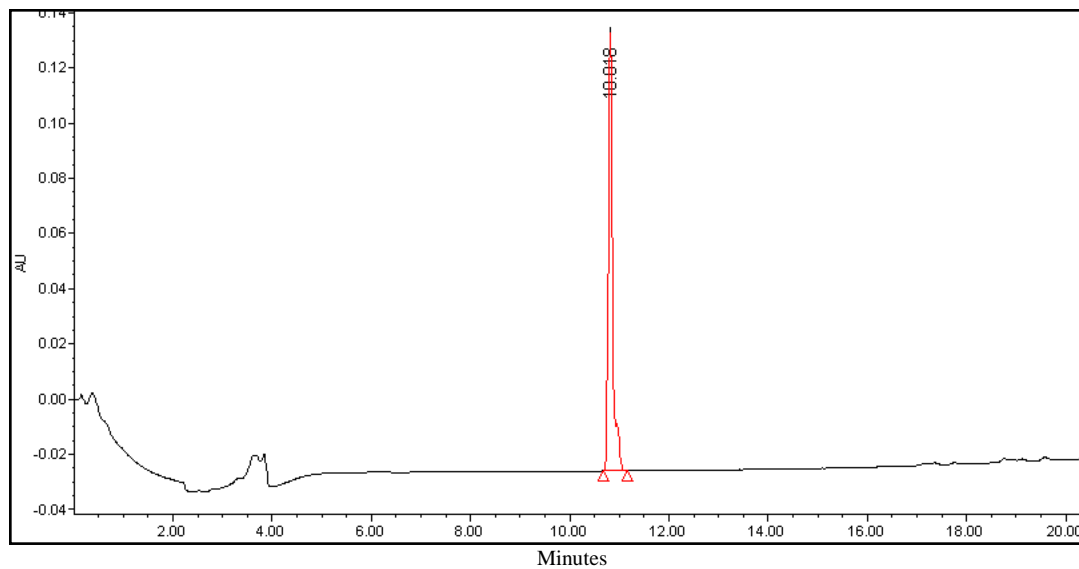
**Supplementary Figure S2.** DLS and TEM analysis of the siRNA: PSMA-1 complexes as compared to an siRNA: transfection reagent complex.

**Supplementary Figure S3** RP IP HPLC Analysis of FITC-PSMA-1 (220nm)



	RT	% Area	Area ( $\mu\text{V}\cdot\text{sec}$ )
1	10.018	100	979467

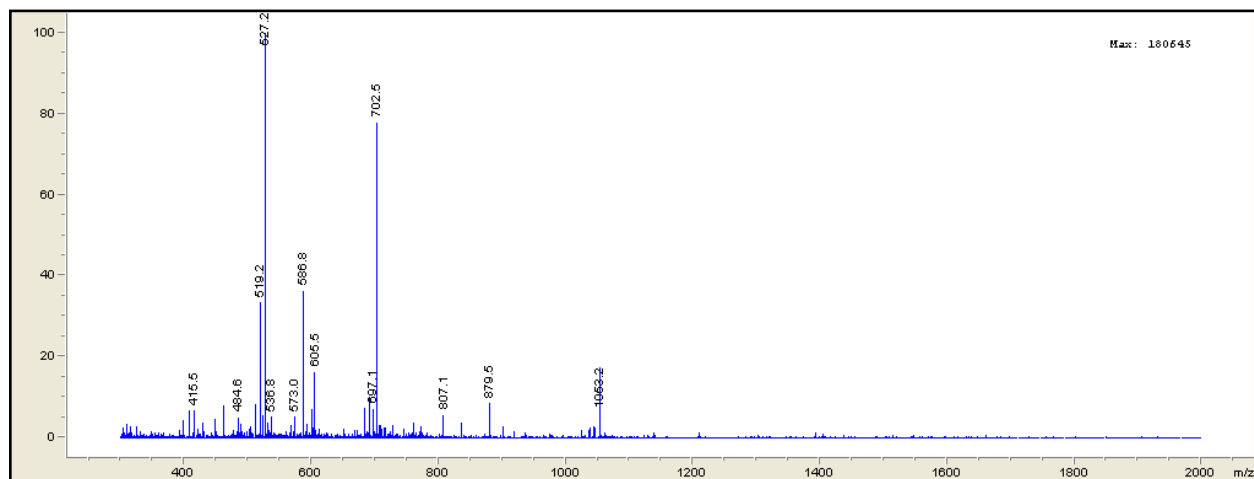
**Supplementary Figure S4** RP IP HPLC Analysis of FITC-PSMA-1 (480nm)



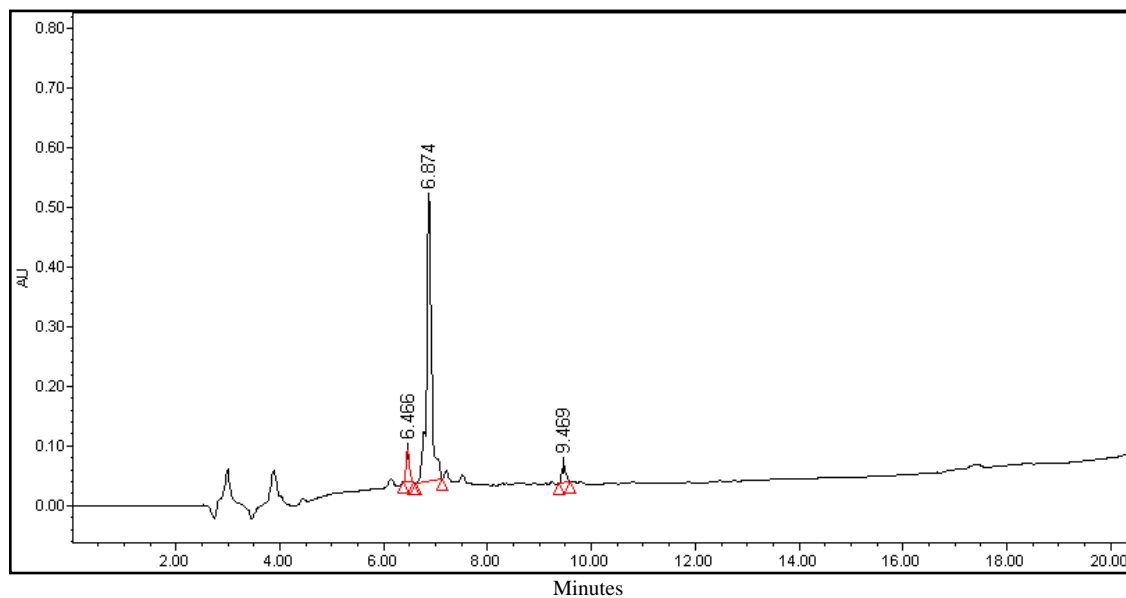
	RT	% Area	Area ( $\mu\text{V}\cdot\text{sec}$ )
1	10.018	100	156568



**Supplementary Figure S5** ESI-MS Analysis of FITC-PSMA-1

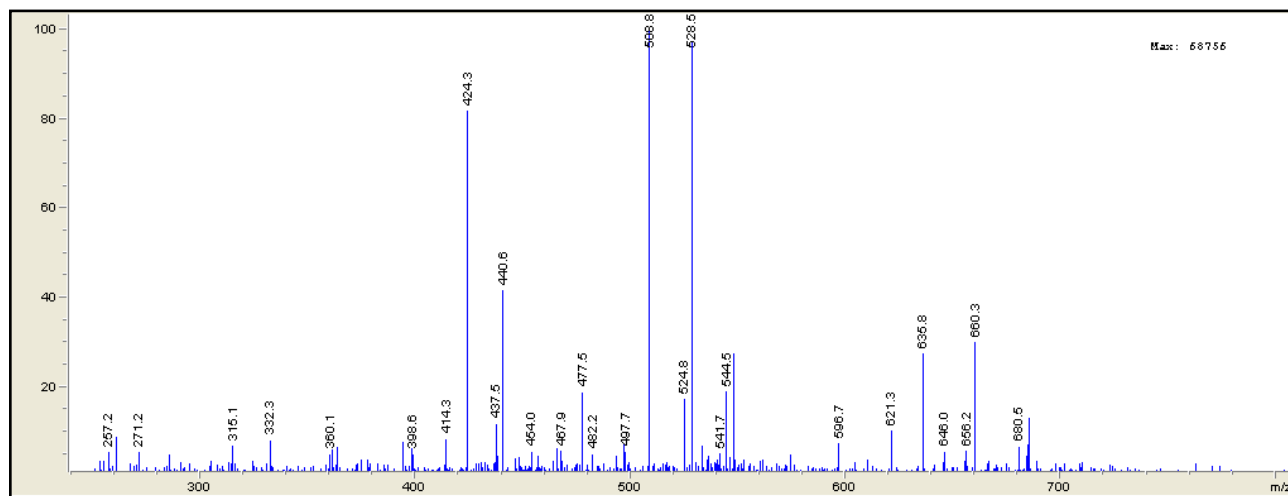


**Supplementary Figure S6** RP IP HPLC Analysis of PSMA-1-R<sub>6</sub> (220nm)

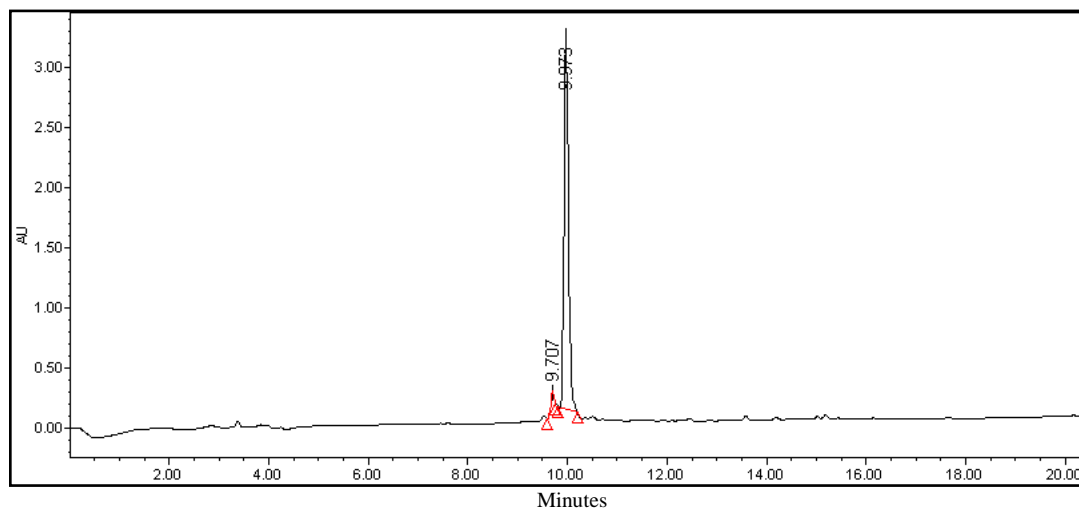


	RT	% Area	Area ( $\mu\text{V} \cdot \text{sec}$ )
1	6.466	6.88	53173
2	6.874	88.09	473200
3	9.469	5.03	38875

**Supplementary Figure S7** ESI-MS Analysis of PSMA-1-R<sub>6</sub>

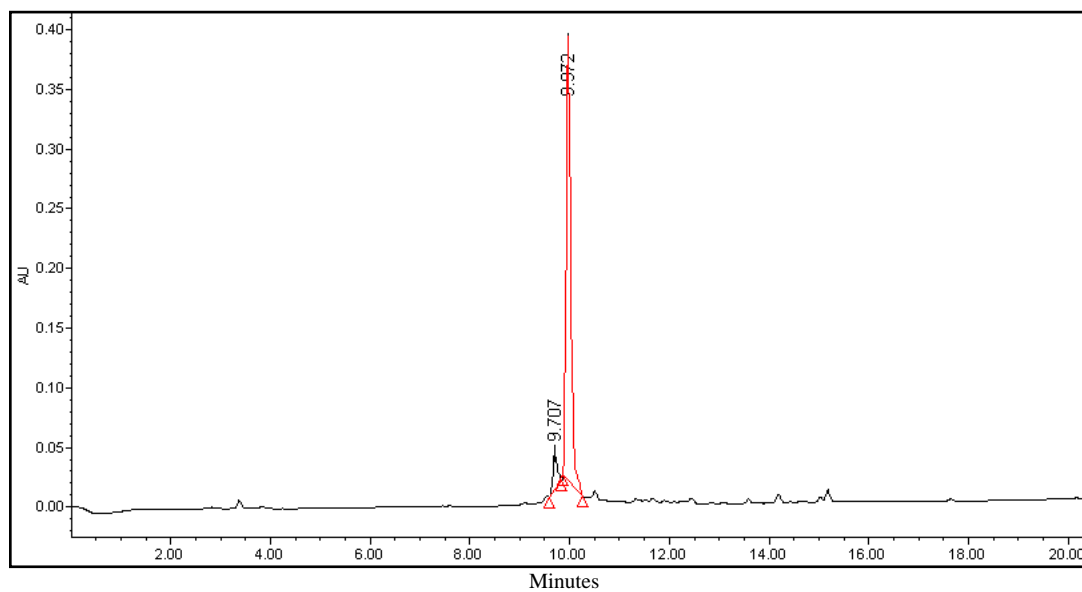


**Supplementary Figure S8** RP IP HPLC Analysis of FITC-PSMA-1-R<sub>9</sub> (220nm)



	RT	% Area	Area ( $\mu\text{V}\cdot\text{sec}$ )
1	9.707	3.18	149571
2	9.973	96.82	3153448

**Supplementary Figure S9** RP IP HPLC Analysis of FITC-PSMA-1-R<sub>9</sub> (480nm)



	RT	% Area	Area ( $\mu\text{V}\cdot\text{sec}$ )
1	9.707	7.22	28945
2	9.973	92.78	371957

Supplementary Figure S10 ESI-MS Analysis of FITC-PSMA-1-R<sub>9</sub>

