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Supplemental Information

**Human DMBT1-Derived Cell-Penetrating Peptides
for Intracellular siRNA Delivery**

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SUPPLEMENTAL MATERIAL

SUPPLEMENTAL DATA ITEMS

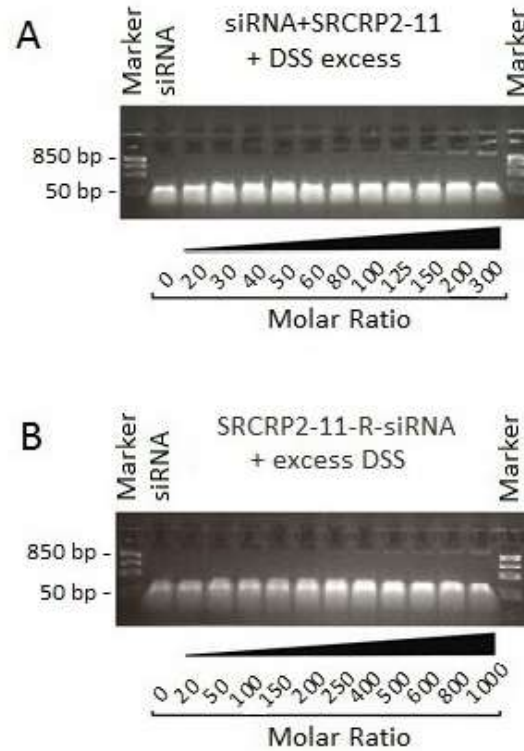


Figure S1. Dextran sulfate sodium competition assay showing tdTomato1 siRNA release from DMBT1-derived peptide-tdTomato1 siRNA complexes. SRCRP2-11-siRNA (A) and SRCRP2-11-R-siRNA (B) complexes. Conditions used for complex formation were the same used in the binding assay. Free tdTomato1 siRNA was completely released at all peptide-siRNA molar ratios.

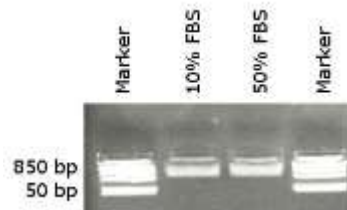


Figure S2. Agarose gel electrophoresis of FBS alone showing bands at 850 bp. 10% and 50% FBS solutions in PBS resulted in bands at 850 bp as determined by electrophoresis and ethidium bromide staining.

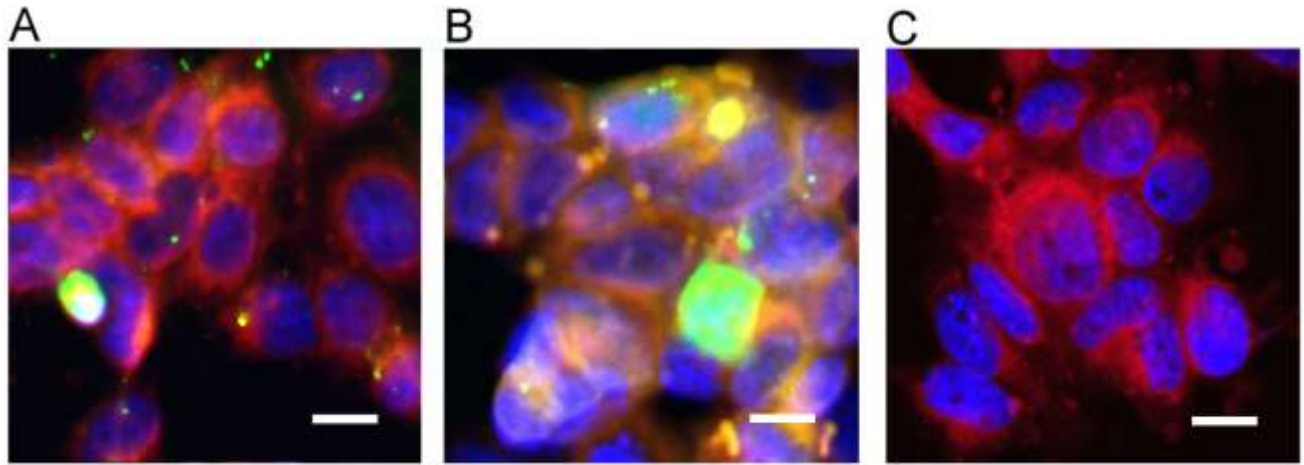


Figure S3. Magnification of selected areas of merged images from Figure 7. MCF7 cells transfected with FITC-SRCRP2-11-Cy3-siRNA (A, detail from figure 7B), MCF7 cells transfected with FITC-SRCRP2-11-R-Cy3-siRNA (B, detail from figure 7D), and MCF7 cells transfected with FITC-SRCRP2-11-Cy3-siRNA (C, detail from figure 7E). Blue is DAPI staining of nuclei, red is CellMask™ Deep Red plasma membrane staining of plasma membrane, green is FITC-labeled peptides, yellow is Cy3-labeled siRNA. Scale bar is 10 μm .

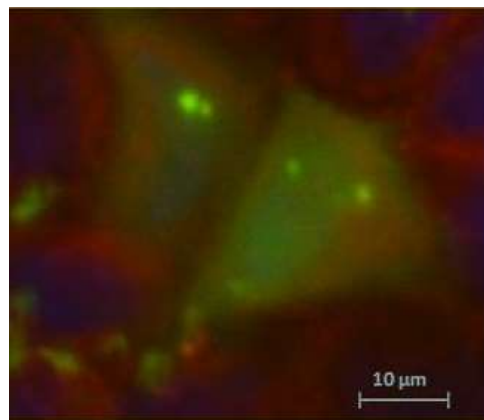


Figure S4. Confocal microscopy image of MCF7 cells treated with FITC-SRCRP2-11 peptide. Compartmentalization and cytoplasmic FITC-signal shown at increased magnification for MCF7 cells transfected with FITC-SRCRP2-11. Blue is DAPI staining of nuclei and red is CellMask™ Deep Red plasma membrane staining of plasma membrane.

		SRCRP2-11-siRNA	SRCRP2-11-R-siRNA
TEM	Average size (nm)	112.7	105.2
	Standard deviation	60.4	75.8
	Standard error of the mean	6.0	8.7
	Size range (nm)	20-350	10-480
DLS	Average size (nm)	105.0	108.0
	Standard deviation	57.0	31.0
	Standard error of the mean	12.7	6.9
	Size range (nm)	30-500	10-800

Table S1. Size comparison of peptide-siRNA complexes (SRCRP2-11-siRNA and SRCRP2-11-R-siRNA) as determined by TEM (transmission electron microscopy) and DLS (Dynamic light scattering). Size comparison of the complexes by TEM and DLS. For TEM, particle size was determined by measuring the particle length with the software NIH ImageJ software¹.

SUPPLEMENTAL REFERENCES

1. Schneider, C. a, Rasband, W. S. & Eliceiri, K. W. NIH Image to ImageJ: 25 years of image analysis. *Nat. Methods* **9**, 671–675 (2012).