Supporting Information

Versatile nano-delivery platform to maximize siRNA combination therapy

*Seung Koo Lee, Benedict Law and Ching-Hsuan Tung**

Molecular Imaging Innovations Institute
Department of Radiology, Weill Cornell Medicine
413 East 69th Street, Box 290, New York, NY 10021, USA
E-mail: cht2018@med.cornell.edu

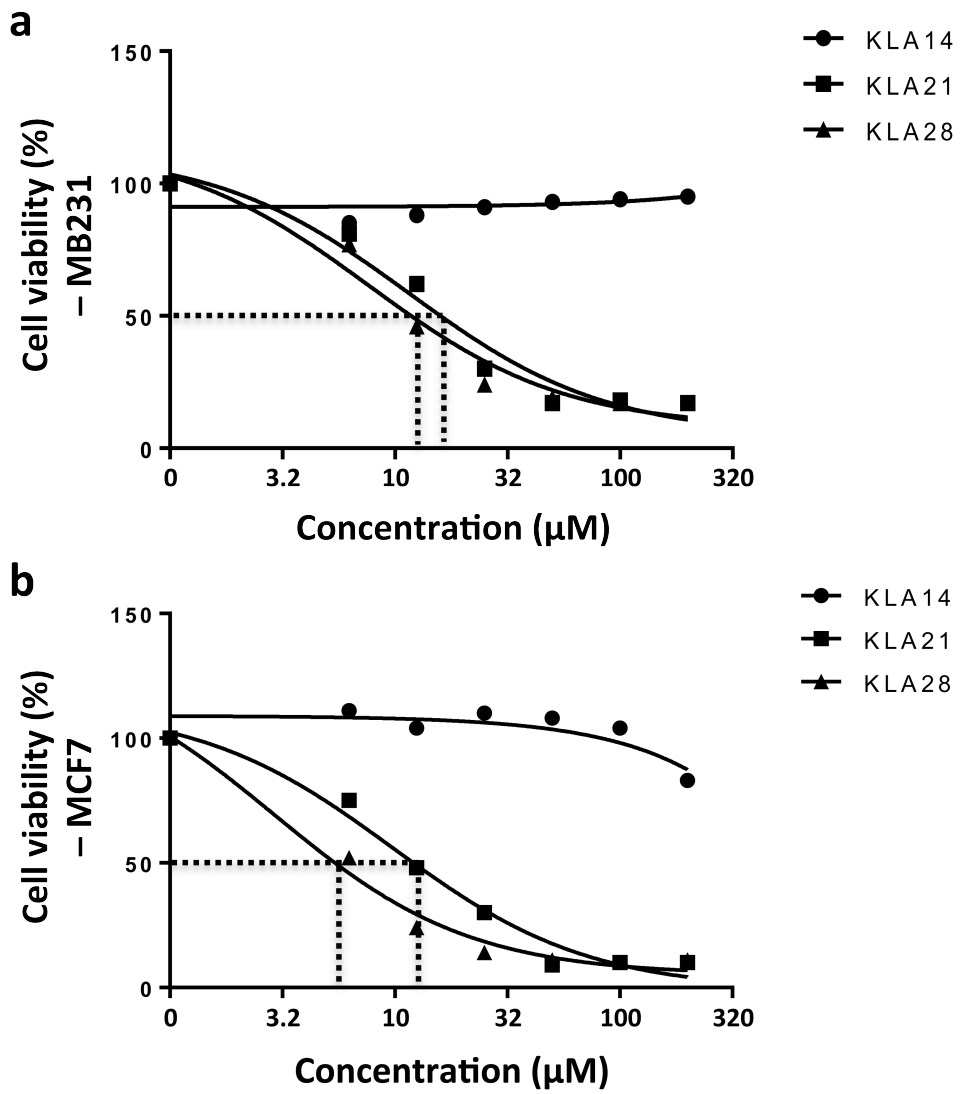
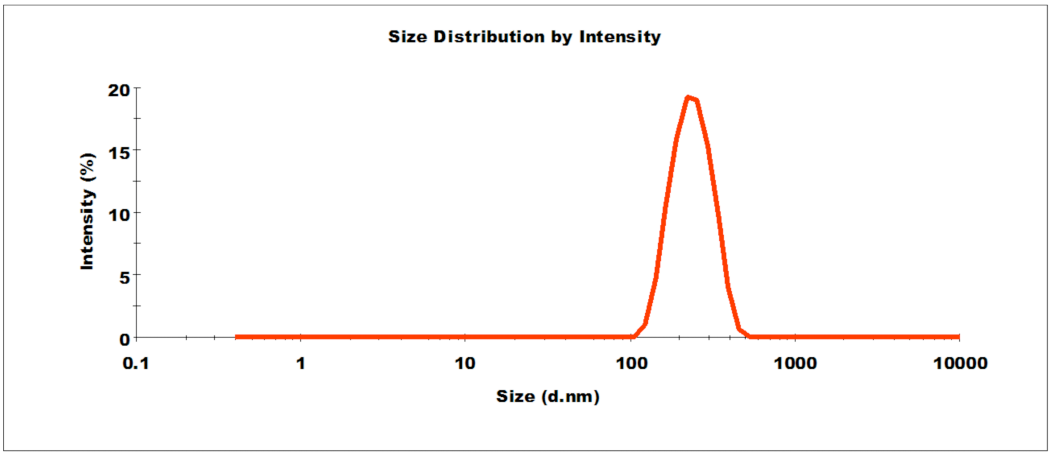


Figure S1. Cytotoxicity of KLA analogues. Cell viability was evaluated two days after treatment with various KLA peptides (KLA_{14}, KLA_{21} and KLA_{28}) for 12 h by cell proliferation assay in (a) MDA-MB231 and (b) MCF7 cells.

a



b

Au	Au/K	Au/K/siR	Au/K/siR/L	Au/K/siR/L/HA
0.178±0.023	0.236±0.076	0.265±0.033	0.266±0.093	0.278±0.099

Figure S2. The size distribution and polydispersity index (PDI) of prepared nanoparticles. The size distribution of Au/K/siR/L/HA particles (a) and PDI of each prepared nanoparticles (b) were measured by DLS.

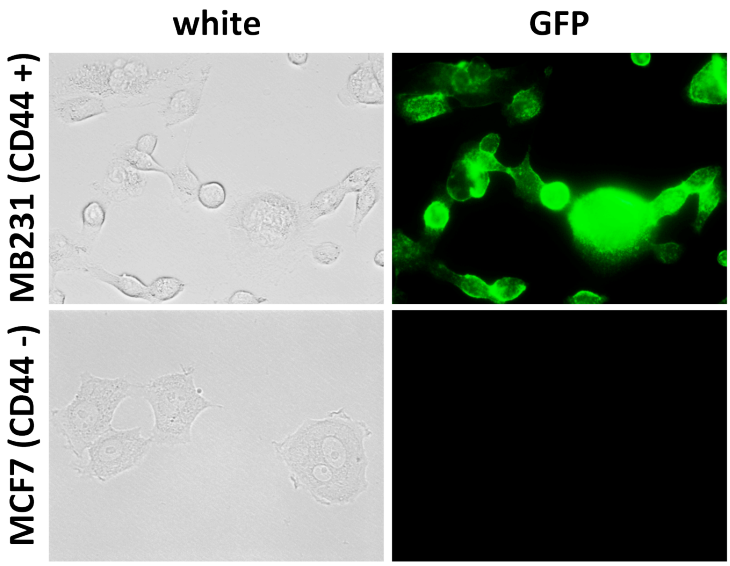


Figure S3. Validation of CD44 expression in MDA-MB231 and MCF7 cells. Cells were incubated with an Alexa 488-CD44 antibody for 30 min, and then imaged under fluorescence microscope. Fluorescence signal was only seen in the CD44 positive MDA-MB231 cells.

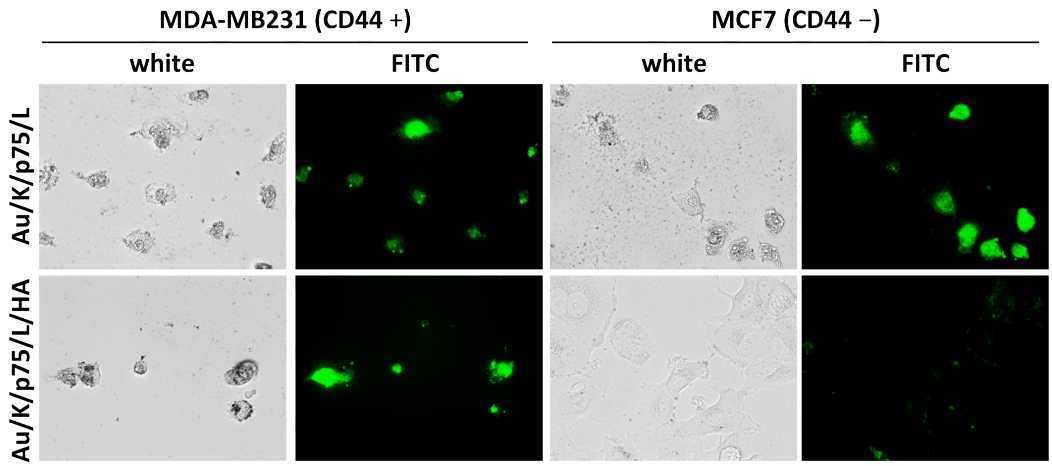


Figure S4. Target-specific delivery and therapeutic effect of TFN. The fluorescence signal of FITC-conjugated KLA peptide (KLA_{28}-FITC) was examined at day 2 after incubation with non-HA or HA-layered nanocomplexes (KLA_{28}-FITC: 1.6 μM, siR-p75: 0.12 μM) for 12 h using fluorescence microscopy in MDA-MB231 and MCF7 cells. The cells with KLA signal also showed signs of apoptosis.