Supporting Information

Humanized Lewis-Y specific antibody based delivery of STAT3 siRNA

Yuelong Ma[1], Claudia M. Kowolik[1], Piotr M. Swiderski[1], Marcin Kortylewski[2], Hua Yu[2], David A. Horne[1*], Richard Jove[1], Otavia L. Caballero[3], Andrew J.G. Simpson[3], Fook-Thean Lee[4], Vinochani Pillay[4], and Andrew M. Scott[4*]

1. Beckman Research Institute at City of Hope, Department of Molecular Medicine, Duarte, CA, 91010, United States
2. Beckman Research Institute at City of Hope, Department of Cancer Immunotherapeutics and Tumor Immunology, Duarte, CA, 91010, United States
3. Ludwig Institute for Cancer Research, New York Branch at Memorial Sloan-Kettering Cancer Center, New York, NY, 10021, United States
4. Ludwig Institute for Cancer Research, Melbourne-Austin Branch, Austin Hospital, Heidelberg, VIC, 3084, Australia
*Corresponding Author.Tel: +1 626 256 4673; Fax: +1 626 930 5410. E-mail: dhorne@coh.org.

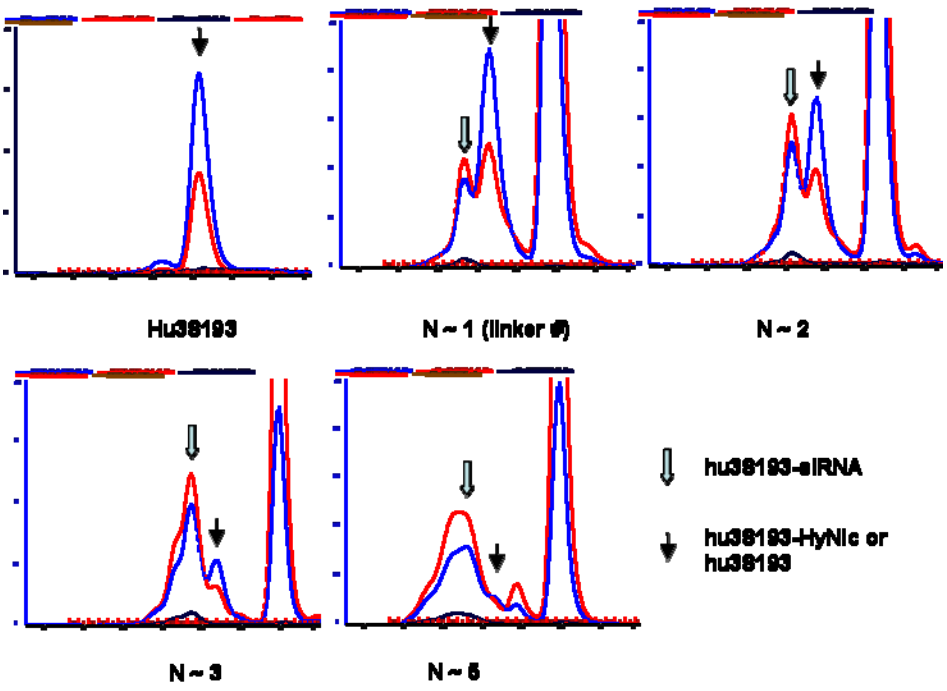
Figure S1. FPLC trace of hu3S193-siRNA product from hu3S193-HyNic with different linker numbers. Black peak (350 nm), red peak (260 nm), blue peak (280 nm).

Figure S2. Flow cytometry analysis of A431 cells. a) A431 cells were stained with siRNA(FL) alone, siRNA(FL) mixed with hu3S193, hu3S193 and/or 9r. siRNA: 300 nM. Vehicle:siRNA = 5:1. b) A431 cells were either stained with hu3S193-9r(1):siSTAT3(FL)(5:1) or pre-treated with hu3S193 (2mg/ml) and then stained with hu3S193-9r(1):siSTAT3(FL)(5:1). The siRNA concentration was 300 nM.

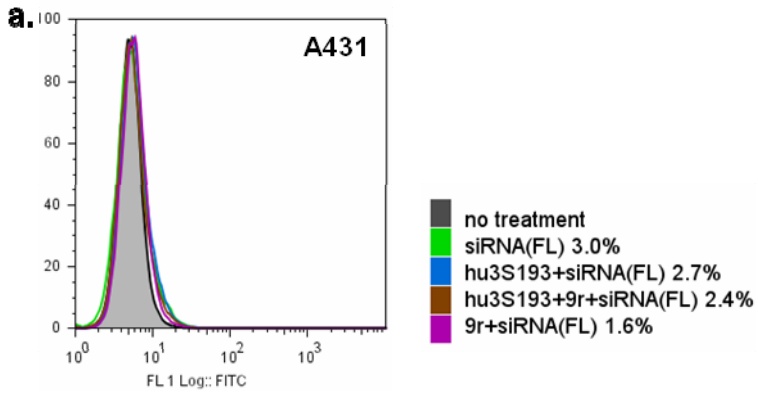
Figure S3. Optimization of *STAT3* knockdown with the non-covalent system. *STAT3* expression levels were determined by quantitative PCR after 24h of treatment. a) Influence of peptide length on siRNA delivery. A431 cells were treated with hu3S193-9r(1):siSTAT3 or hu3S193-15r(1):siSTAT3 at the indicated vehicle (**Veh**):siRNA ratios. The siRNA concentration

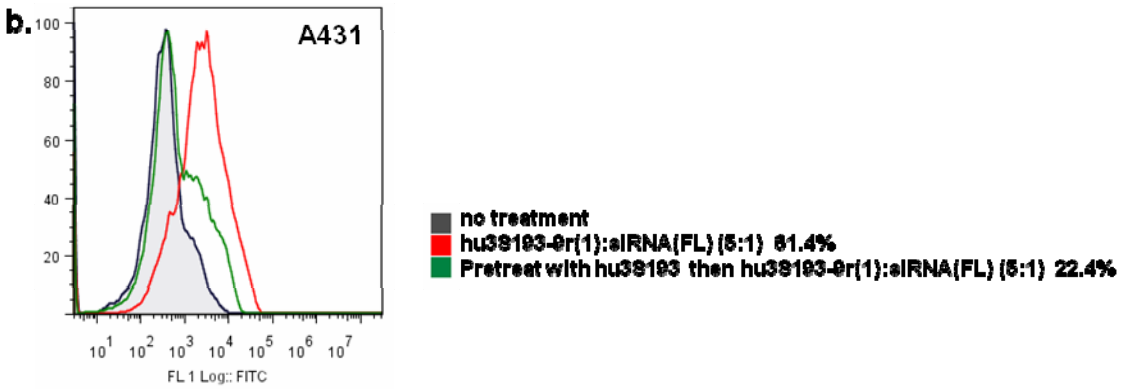
was 300 nM. b) Optimization of siRNA concentration. A431 cells were treated with various concentrations of hu3S193-9r(1):siSTAT3(5:1).

Supplementary Figure S1



Supplementary Figure S2





Supplementary Figure S3