Electronic Supplementary Information

Mucus barrier-triggered disassembly of siRNA nanocarriers

Troels B. Thomsen[a,b], Leon Li[c,d,e], Kenneth A. Howard*[a,b]

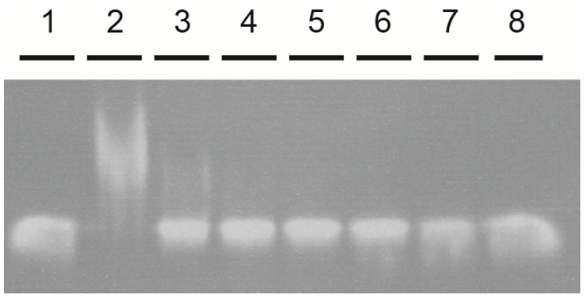

Fig. S1 Evaluation of chitosan/siRNA-FAM nanocarrier stability using native polyacrylamide gel electrophoresis (PAGE). Displaced siRNA-FAM was resolved by gel electrophoresis after incubation with different heparin/siRNA-FAM (w/w) ratios for 30 min. Lane 1: Naked siRNA-FAM; Lane 2: Nanocarrier NP 60; Lane 3: Nanocarrier NP 60 + 2.5x heparin; Lane 4: Nanocarrier + 5x heparin; Lane 5: Nanocarrier + 10x heparin; Lane 6: Nanocarrier + 25x heparin; Lane 7: Nanocarrier + 50x heparin; Lane 8: Naked siRNA-FAM + 50x heparin.

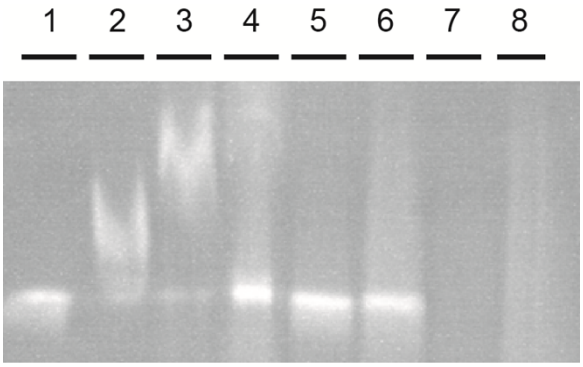

Fig. S2 Evaluation of chitosan/siRNA-FAM nanocarrier stability in porcine gastric mucins (PGM) using native polyacrylamide gel electrophoresis (PAGE). Released siRNA-FAM was resolved by gel electrophoresis after incubation with different mucins (w/v) for 30 min. Lane 1: Naked siRNA-FAM; Lane 2: Nanocarrier NP 60; Lane 3: Nanocarrier NP 60 + 0.5% w/v PGM; Lane 4: Nanocarrier + 2% w/v PGM; Lane 5: Naked siRNA-FAM + 0.5% w/v PGM; Lane 6: Naked siRNA-FAM + 2% w/v PGM; Lane 7: 0.5% w/v PGM; Lane 8: 2% w/v PGM.