CK2 targeted RNAi therapeutic delivered via malignant cell-directed tenfibgen nanocapsule: dose and molecular mechanisms of response in xenograft prostate tumors

## **Supplementary Materials**



**Supplementary Figure S1: Nanocapsule morphology.** Transmission electron micrographs of TBG-RNAi-CK2, TBG-RNAi-F7, TBG-RNAi-CK2-no propyl, and TBG-erythritol nanocapsules used for different *in vivo* studies. Scale bar represents 100 nm. Original magnification 80,000.

Cargo	Particle Size (nm) <sup>a</sup>	Zeta Potential (meV) <sup>b</sup>	Morphology <sup>c</sup>	Sequence <sup>d</sup>
RNAi-CK2	$20.5 \pm 2.1$	$-1.19 \pm 1.05$	Uniform, Single Capsules	5'ATACAACCCAAACT ccacau(propyl)3'
RNAi-CK2 (no propyl)	$18.9 \pm 1.7$	$-12.25 \pm 7.4$	Uniform, Single Capsules	5'ATACAACCCAAA CTccacau3'
RNAi-F7	$21.9 \pm 2.3$	$1.49\pm0.99$	Uniform, Single Capsules	5'GUAAGACTTGAG Augaucc(propyl)3'
Erythritol	$22.8 \pm 1.9$	$1.07 \pm 0.67$	Uniform, Single Capsules	N/A

Supplementary lable S1: IBG nanocapsule characteristics and inf
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<sup>a</sup>Mean  $\pm$  SD of the average elliptical diameter determined from TEM micrographs measuring at least 15 nanocapsules.

<sup>b</sup>Average surface charge measured by dynamic light scattering across a 20 volt potential in 1 mM KCl at 2  $\mu$ g/ml. Data shown is the mean  $\pm$  SD of 3 independent measurements.

<sup>c</sup>Morphology of all nanocapsules determined by visual AFM and TEM observation.

<sup>d</sup>Sense strand sequence. Upper case letters represent phosphodiester DNA chemistry; small case letters represent 2' O-methyl RNA chemistry.