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Supporting Information

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for

Imaging Target mRNA and siRNA-Mediated Gene Silencing In Vivo with Ribozyme-Based Reporters

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Figure S1. A plot of blue and green fluorescence emission from COS7 transfected with indicated constructs along with pCMV-p53DN after 1 h of CCF2/AM staining. Images were captured at 530 nm (green emission) and 460 nm (blue emission) (See **Fig. 1d** in the paper). Region of interests (ROIs) were drawn around DsRed-positive (transfected) cells, and blue and green intensities were measured for each ROI after subtraction from background. The diagonal line defines a blue/green ratio of 1. For the positive control pCMV-Bla, 12 out of 12 cells have a blue to green ratio of more than 1, for TRz-Bla construct, 14 out of 26 cells have a blue to green ratio of more than 1, and for the negative control, 3 out of 34 have a blue to green ratio of more than 1.

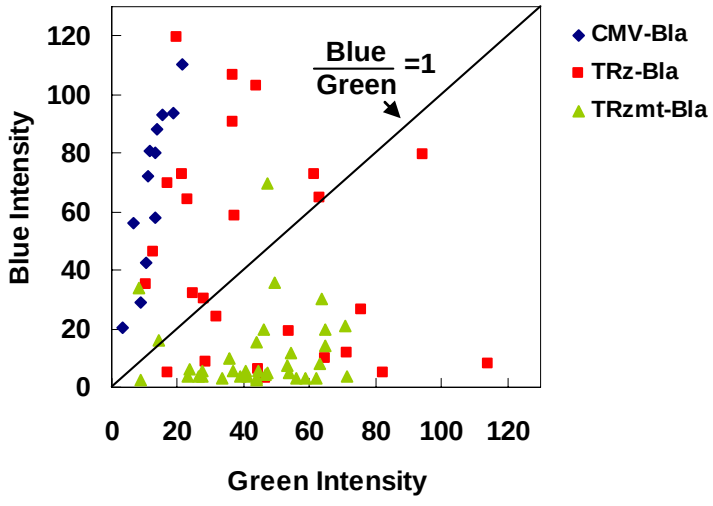

Figure S2. Ex vivo bioluminescence imaging of dissected organs of mice 24 h after the hydrodynamic delivery of the ribozyme-luciferase reporter (TRz-FL) and the pCMV-p53DN (right) or an empty vector (left). Arrows indicate the dissected livers from each mouse, which displayed bioluminescence emission.

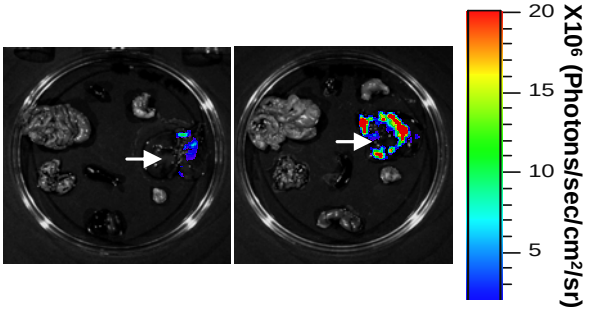

Figure S3. (a) Plot showing luciferase activity determined by ROI analysis of image shown in Fig. 7b as compared to p53 RNA levels determined by quantitative RT-PCR of the same samples. (b) Representative RT-PCR of samples from the same experiment.

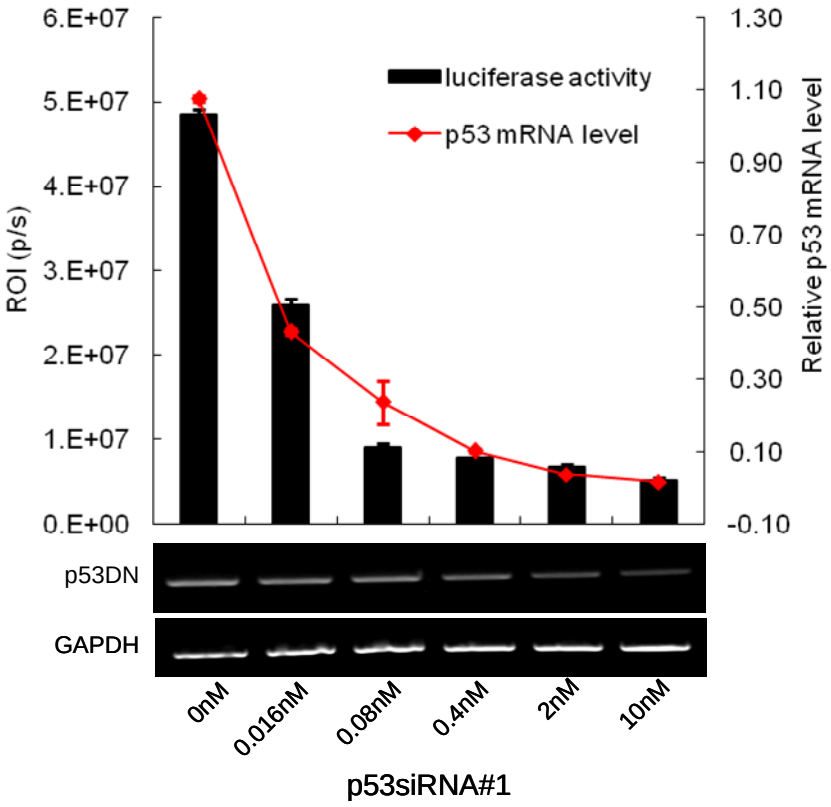

Figure S4. RT-PCR results of total RNAs from liver dissects of mice 24 h post-hydrodynamic delivery of plasmids (TRz-FL2 or pCMV-null and pCMV-p53DN) and siRNA (negative or p53 specific). Lane 1: TRz-FL2+p53DN; Lane 2: TRz-FL2-pCMV-p53DN+p53siRNA#1; Lane 3: TRz-FL2+pCMV-null; Lane 4: TRz-FL2+pCMV-p53DN+negative siRNA.