

**Supplemental Figure S3.**

**Diffusion weighted images of normal FVB F1 mouse pancreas.** The high intensity region of the mouse pancreas consisting of sheet- and tube-like features in 3D volume image has protons with high mobility which was detected by diffusion weighted imaging. *Left panel:* Spin-echo image of the pancreas with no diffusion weighting ( $b=0\text{s/mm}^2$ ), shows high intensity regions over the entire pancreas. *Right panel:* Diffusion weighted spin-echo image of the same section ( $b=1000\text{s/mm}^2$ ), shows nearly 100% signal attenuation only in the high intensity regions. The tissue component surrounding the high intensity region, namely, acinar cells, displays less signal attenuation in the diffusion weighted image, suggesting the presence of protons with less mobility in that component. 2D images shown here were acquired using a diffusion weighted spin-echo imaging sequence and the following parameters: TR/TE 2000ms/29ms, diffusion gradient duration 3ms, delay between diffusion gradients 20ms,  $b$  values as indicated above, slice thickness  $500\mu\text{m}$ , field of view  $22\text{mm} \times 16\text{mm}$  and matrix size  $256 \times 256$  for in-plane pixel size  $86\mu\text{m} \times 62\mu\text{m}$ .

