

Supplemental material for:

**High-resolution imaging of dietary lipids in cells and tissues by
NanoSIMS analysis**

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Supplementary Figures

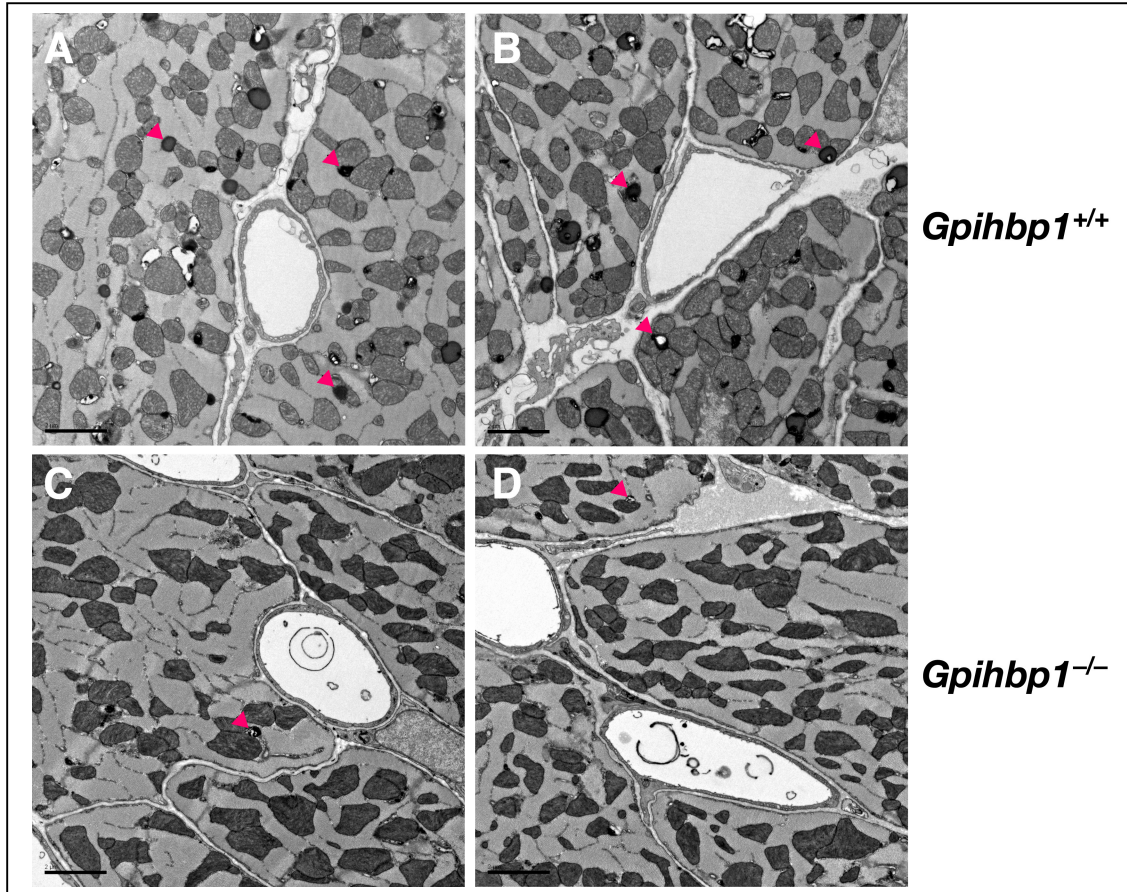


Figure S1. Transmission electron micrographs of hearts from *Gpihbp1*^{+/+} and *Gpihbp1*^{-/-} mice. (A–B) Numerous cytoplasmic lipid droplets (arrowheads) are detected throughout the myocardium of a wild-type (*Gpihbp1*^{+/+}) mouse. (C–D) There are far fewer cytosolic lipid droplets in cardiomyocytes of *Gpihbp1*^{-/-} mice. Scale bar, 2 μm.

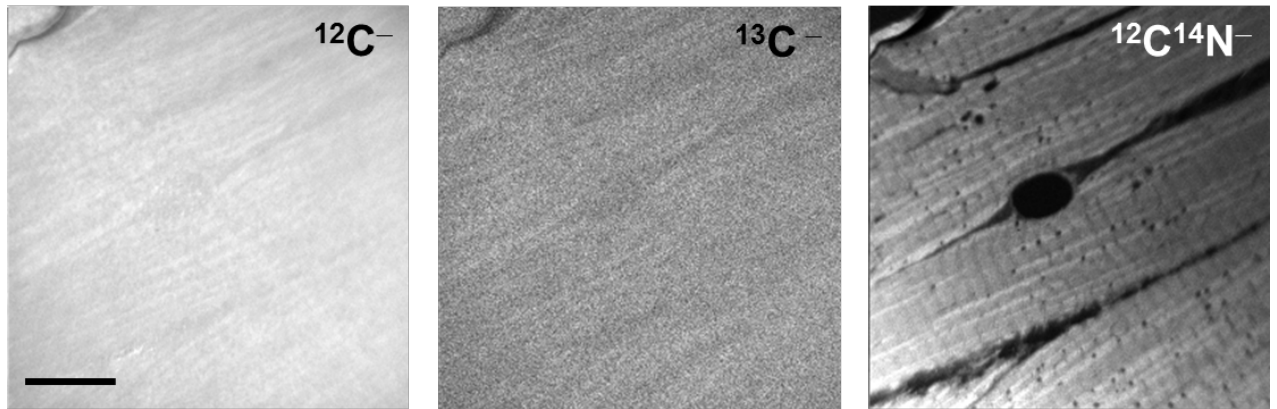


Figure S2. $^{12}\text{C}^-$, $^{13}\text{C}^-$, and $^{12}\text{C}^{14}\text{N}^-$ NanoSIMS images of the heart of a wild-type mouse that had not received any ^{13}C -lipids. Scale bar, 10 μm . Signal scales: $^{12}\text{C}^-$ (left panel), 0–3500, with 3500 being white; $^{13}\text{C}^-$ (middle panel), 0–100, with 100 being white.

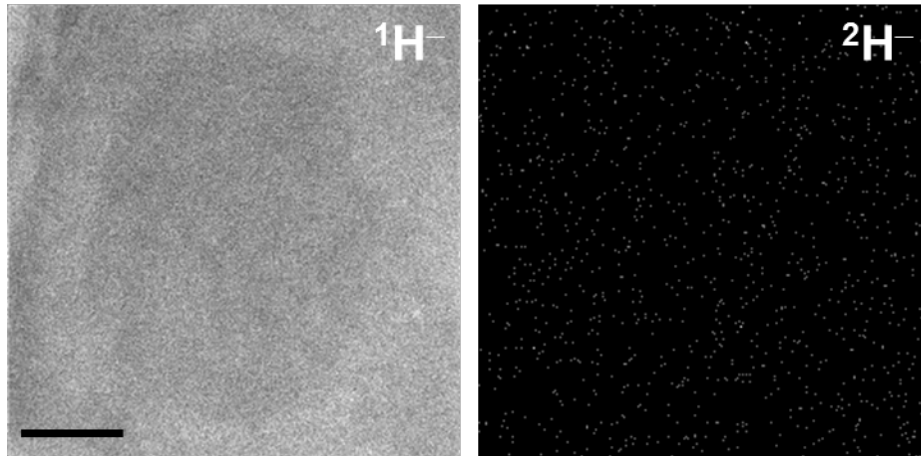


Figure S3. $^1\text{H}^-$ and $^2\text{H}^-$ NanoSIMS images of a cell that had not received any ^2H -lipids. Scale bar, 3 μm . Signal scales: $^1\text{H}^-$ (left panel), 0–150, with 150 being white; $^2\text{H}^-$ (right panel), 0–1, with 1 being white. Because the NanoSIMS 50 was tuned to detect $^1\text{H}^-$ and $^2\text{H}^-$, it was not possible to generate a $^{12}\text{C}^{14}\text{N}^-$ image.