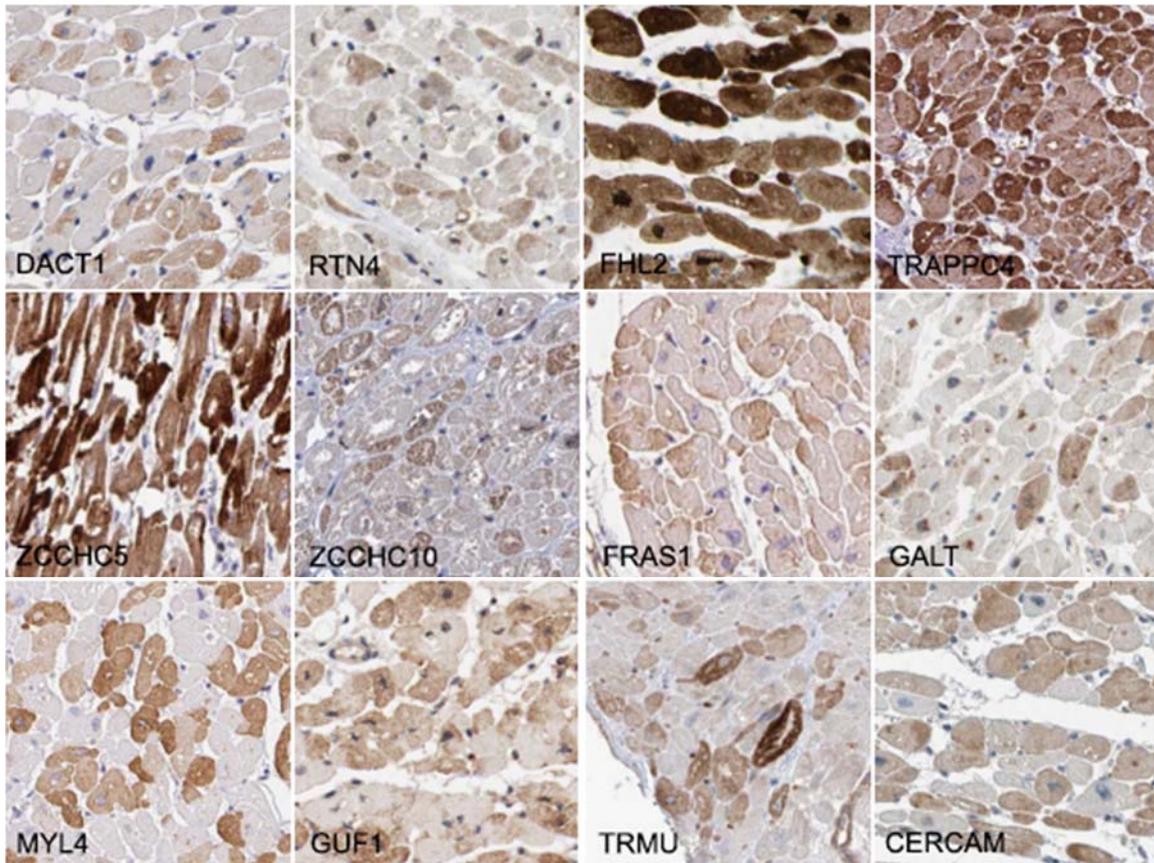
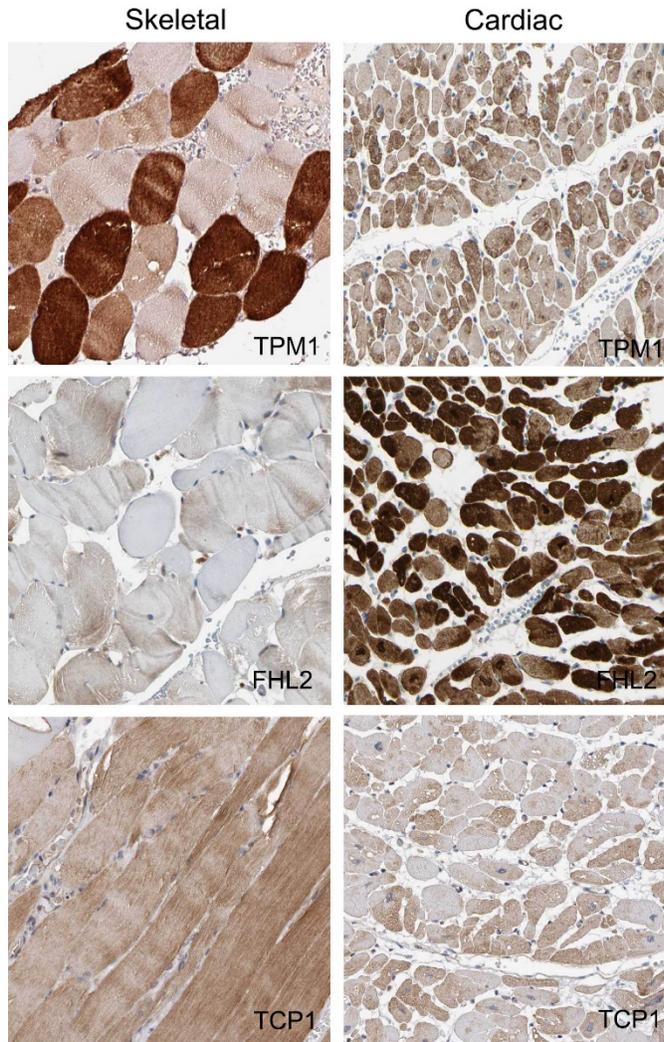


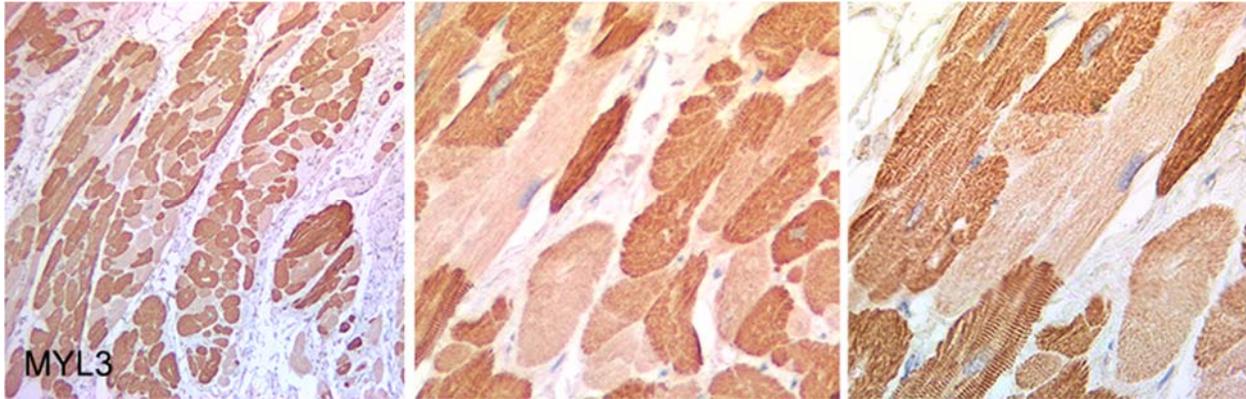
Supplemental Figures 1-8



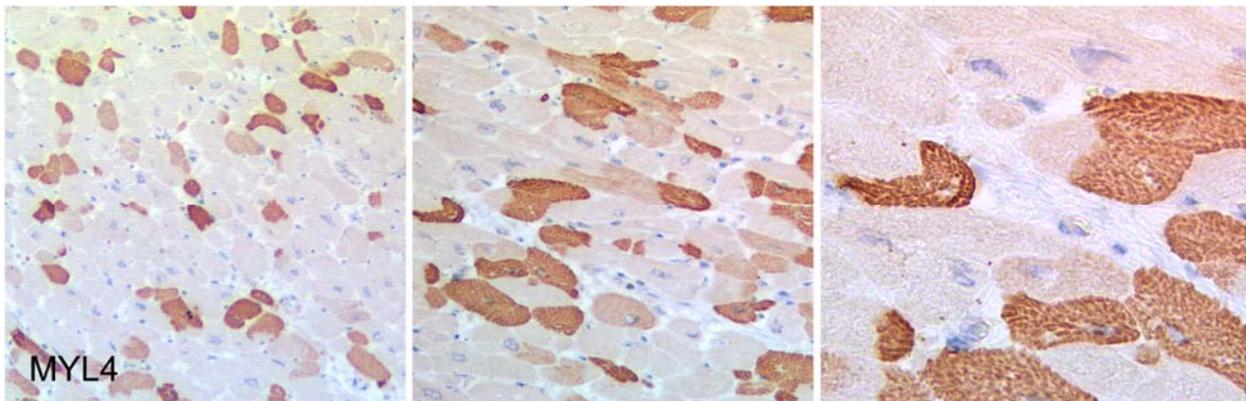
Supplemental Figure 1. Twelve protein examples of mosaic pattern staining of the myocardium. All images are from the Human Protein Atlas [16].



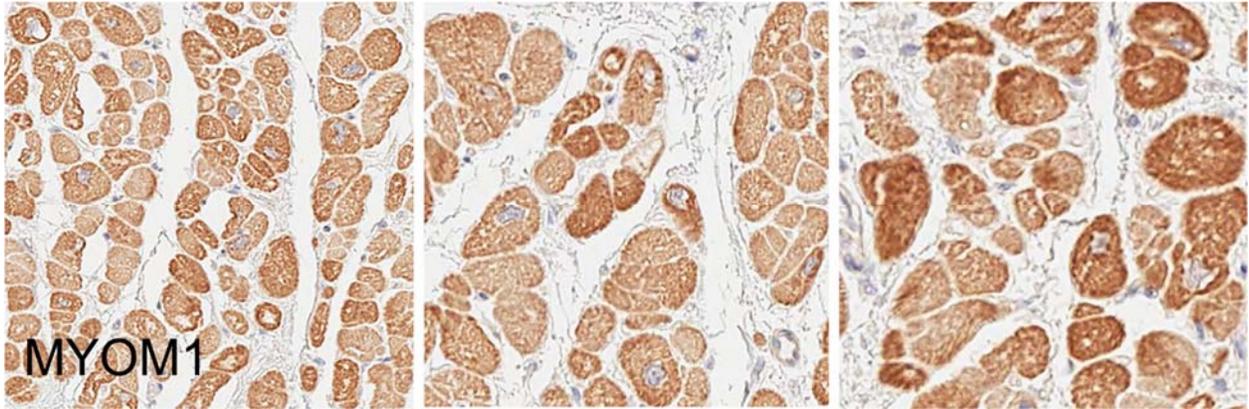
Supplemental Figure 2. A representative comparison of skeletal and cardiac images of three proteins. For tropomyosin 1 (TPM1), there is a strong mosaic pattern of expression in skeletal muscle with a less clear pattern in myocardium. For Four and a half LIM domains 2 (FHL2), there is a weak pattern of skeletal mosaicism, with a stronger cardiac mosaicism. For T-complex 1 (TCP1), the skeletal myocytes have homogenous expression while there is heterogeneous expression in cardiac myocytes. All images from the Human Protein Atlas.



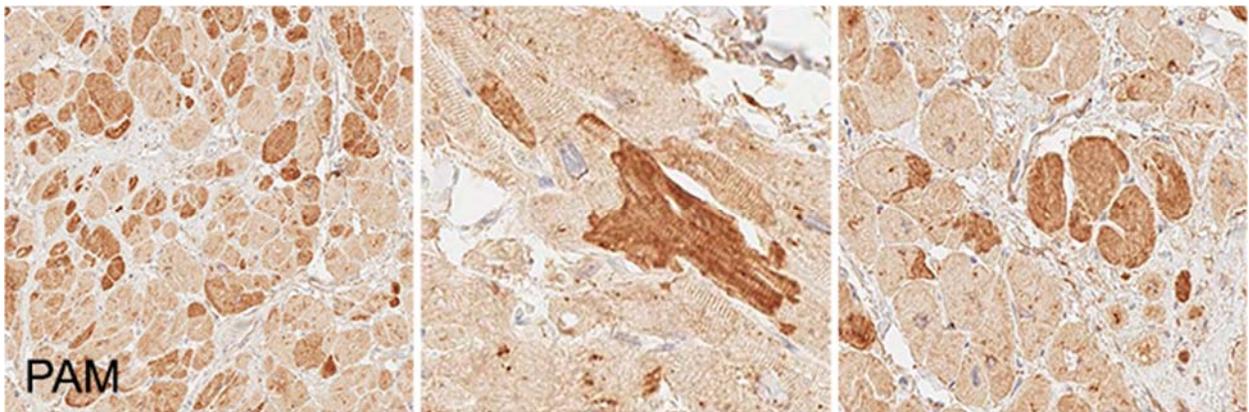
Supplemental Figure 3. Examples of atrial MYL3 staining from medium (100x) to high (400x) resolution demonstrating the variable expression of adjacent myocytes for MYL3.



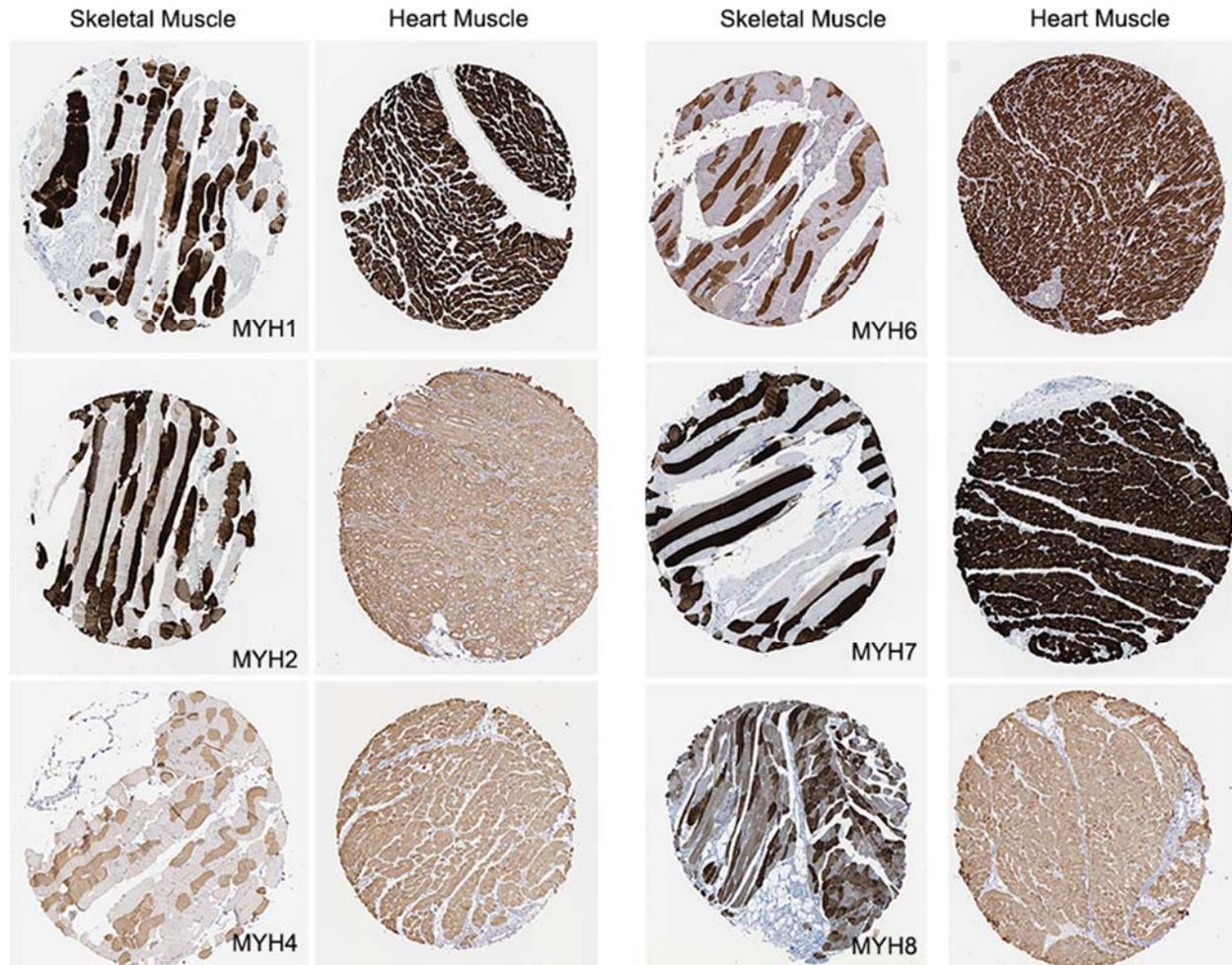
Supplemental Figure 4. Examples of ventricular MYL4 staining from medium (100x) to high (400x) resolution demonstrating the variable expression of adjacent myocytes for MYL4.



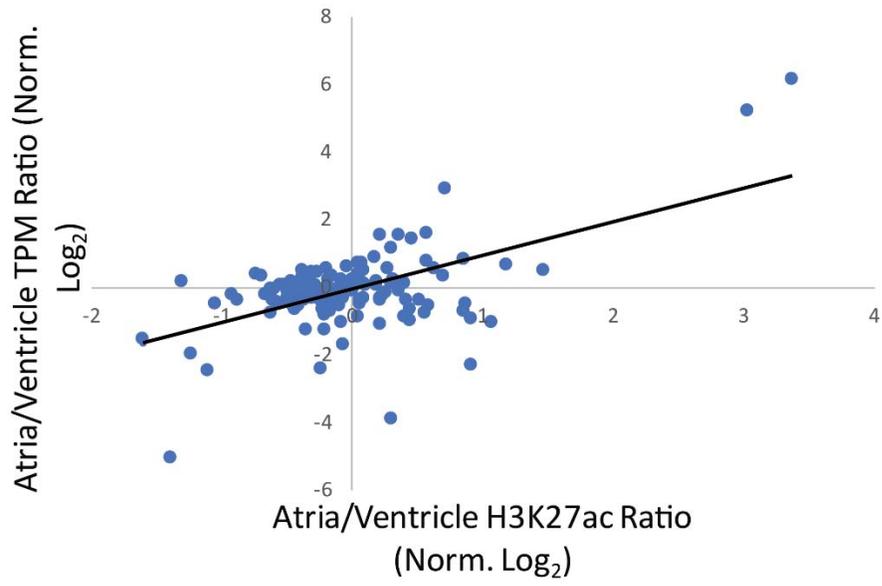
Supplemental Figure 5. Examples of atrial MYOM1 staining from medium (100x) to high (200x) resolution demonstrating the variable expression of adjacent myocytes for MYL4.



Supplemental Figure 6. Examples of PAM ventricular staining from medium (100x) to high (200x) resolution demonstrating the variable expression of adjacent myocytes for MYL4.



Supplemental Figure 7. Representative comparisons of myosin heavy chain (MYH) staining between skeletal muscle and cardiac muscle. For these 6 representative MYH proteins that are mosaic in the skeletal muscle, none are mosaic in heart.



Supplemental Figure 8. Correlation between mosaic atrial/ventricular gene expression ratio (in Log₂ TPM) and atrial/ventricular H3K27ac ratio (in Log₂). A Pearson correlation coefficient=0.55.