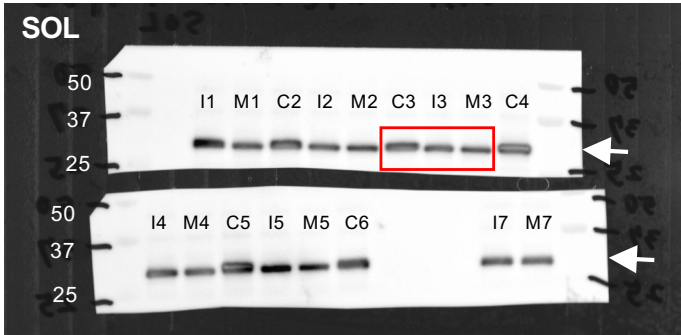


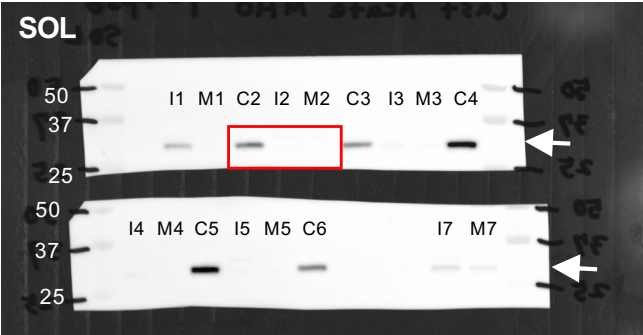
Supplementary Figure S1

**Acute** Some lanes are absent because the corresponding soleus muscle samples could not be collected during tissue dissection. C: control, I: cast immobilization, M: cast+MHO.

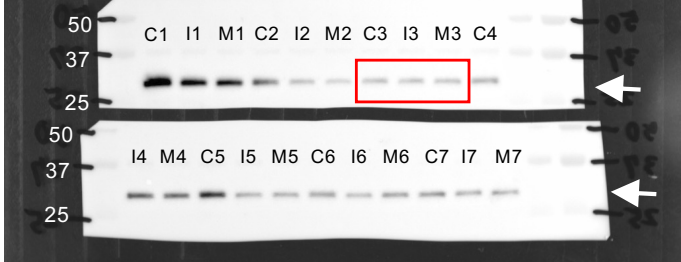
Total-rpS6



Phospho-rpS6



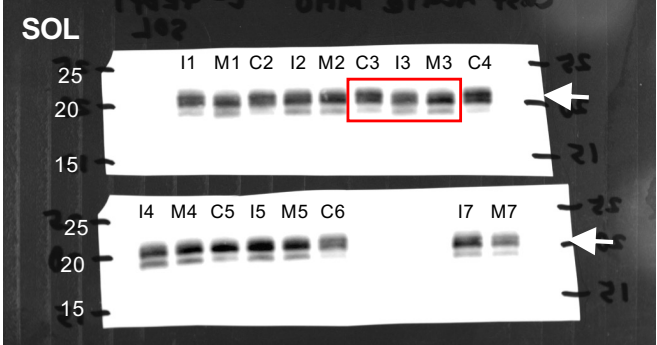
PLA



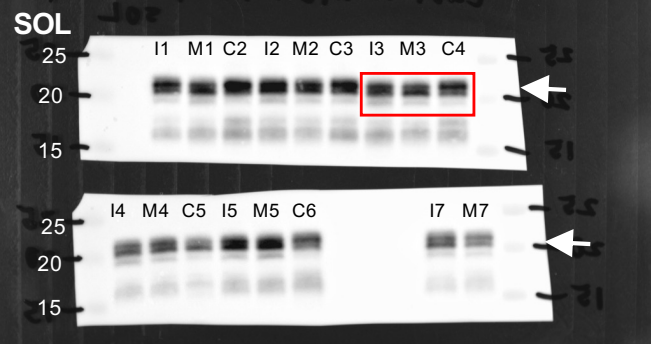
PLA



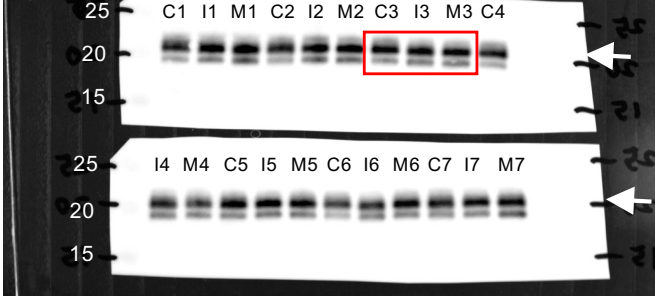
Total-4E-BP1



Phospho-4E-BP1



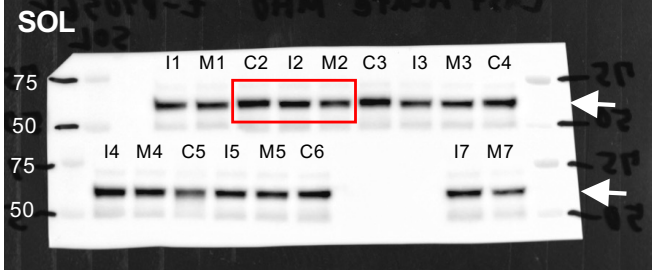
PLA



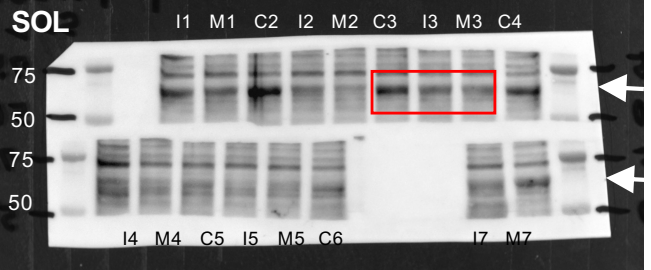
PLA



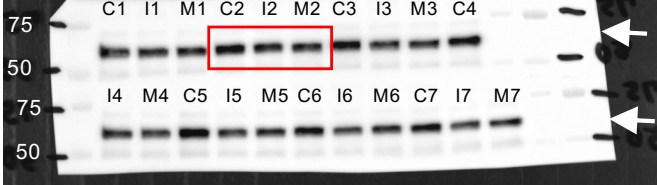
Total-p70S6K



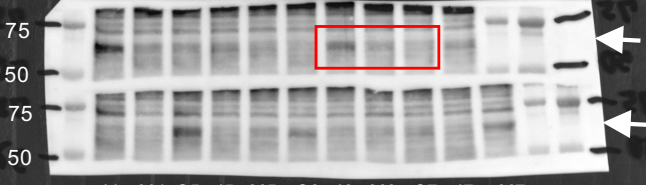
Phospho-p70S6K



PLA

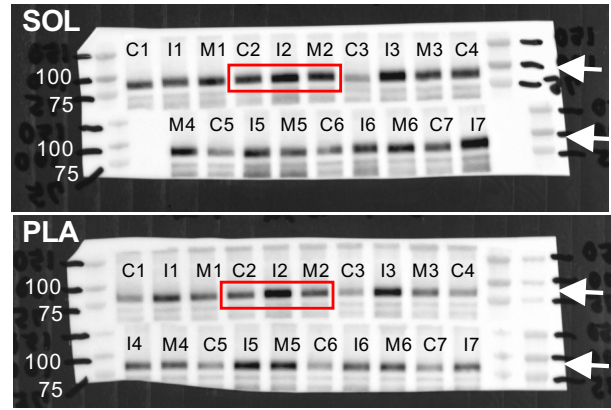


PLA

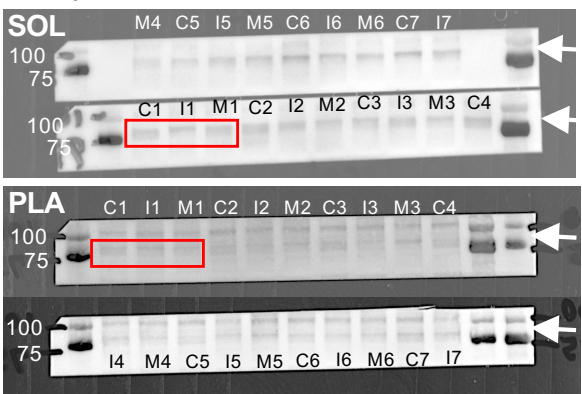


**Chronic** Some lysate samples were exhausted during previous Western blot analyses and were therefore not available for Caspase-3 analysis.

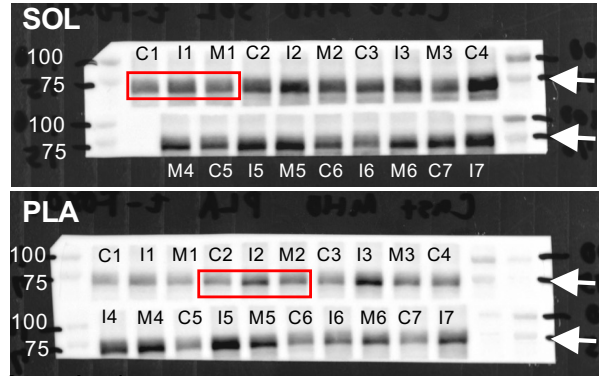
**Total-FOXO3a**



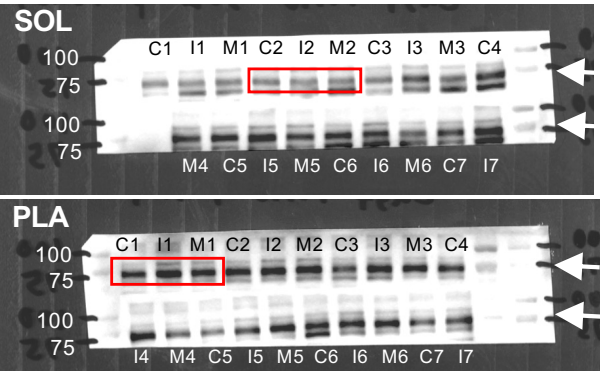
**Phospho-FOXO3a**



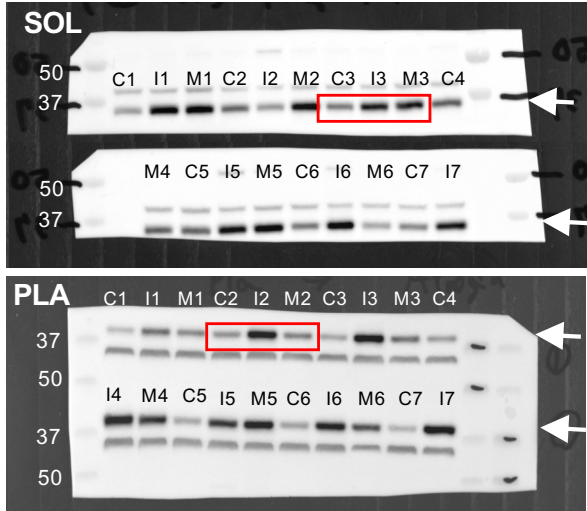
**Total-FOXO1**



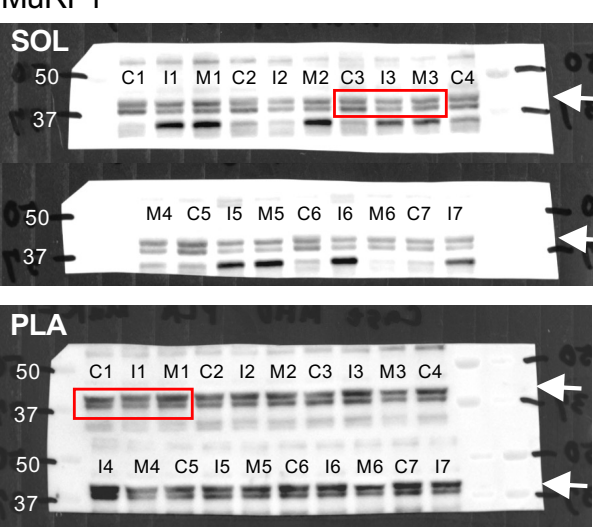
**Phospho-FOXO1**



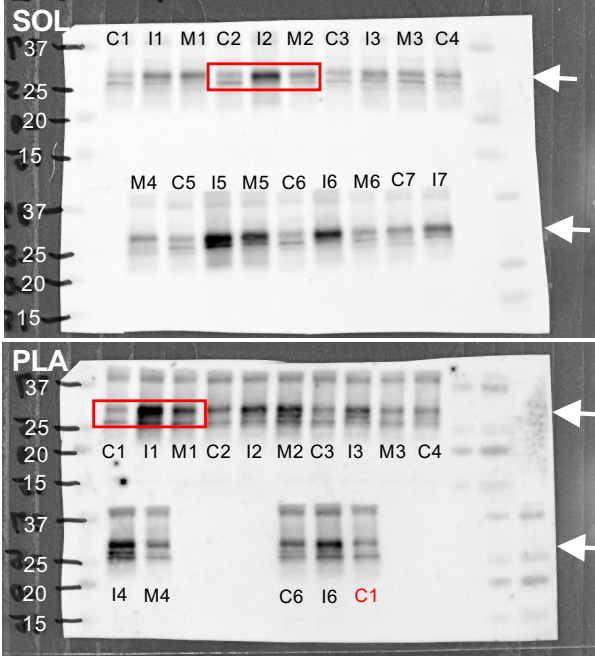
**Atrogin-1**



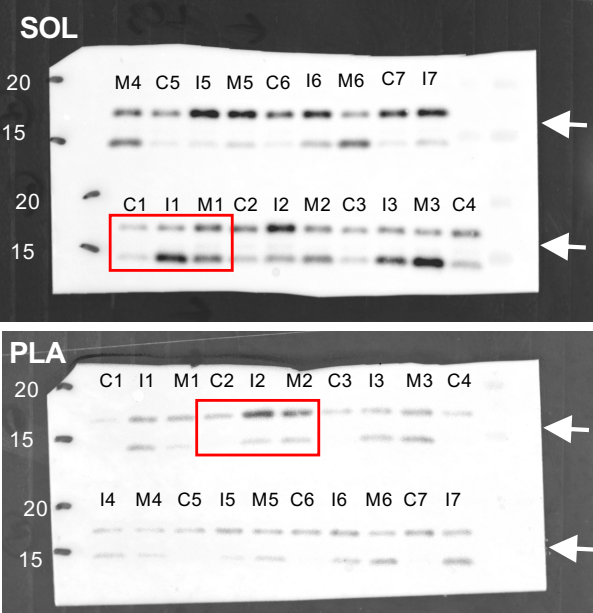
**MuRF1**



**Caspase-3**

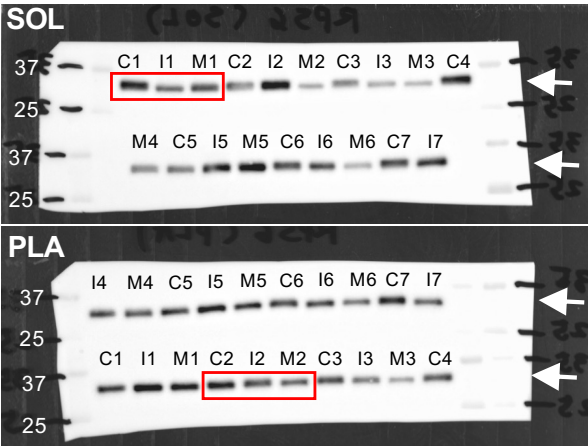


**LC3**

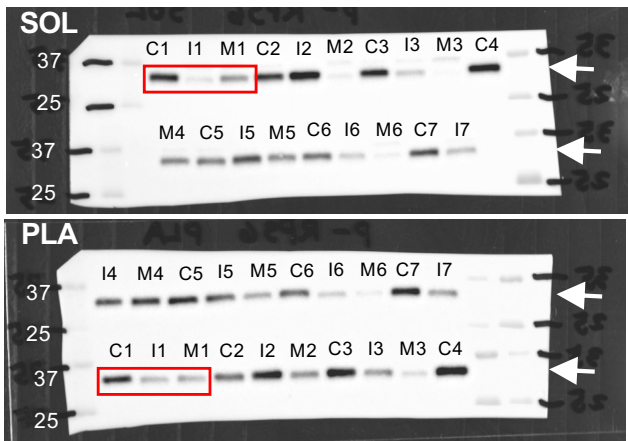


Chronic

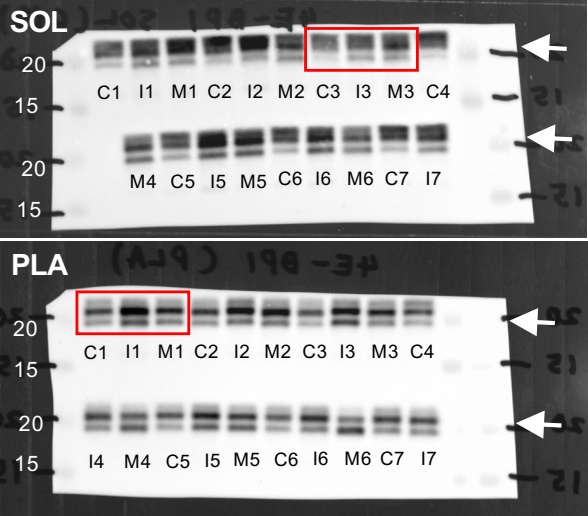
Total-rpS6



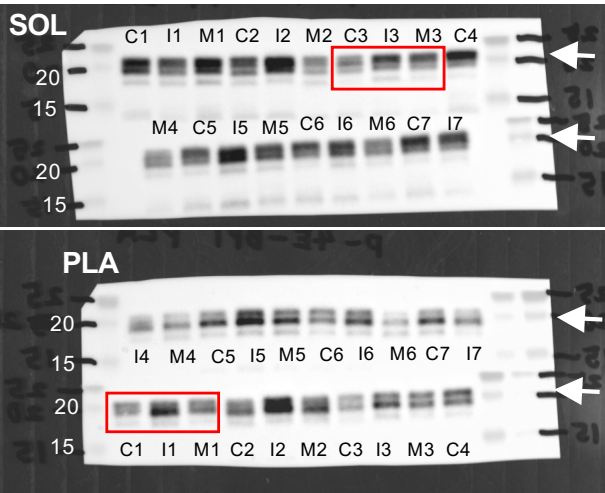
Phospho-rpS6



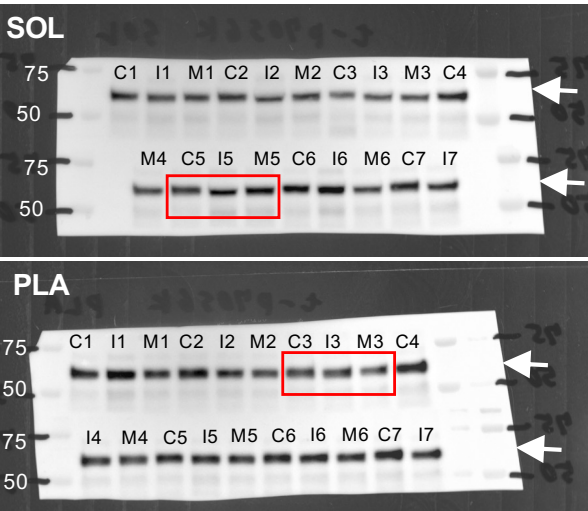
Total-4E-BP1



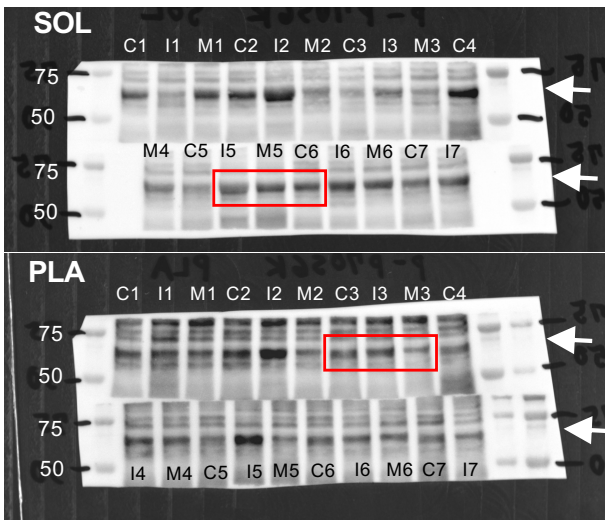
Phospho-4E-BP1



Total-p70S6k

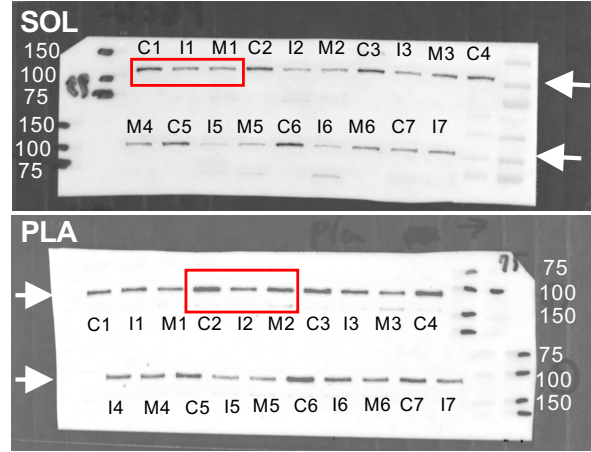


Phospho-p70S6k

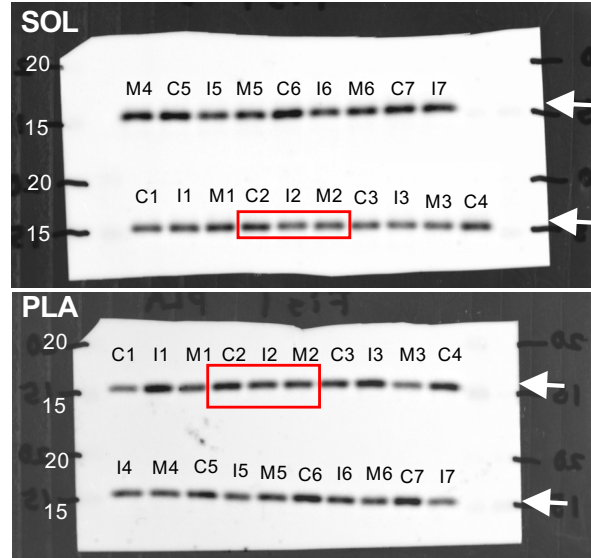


Chronic

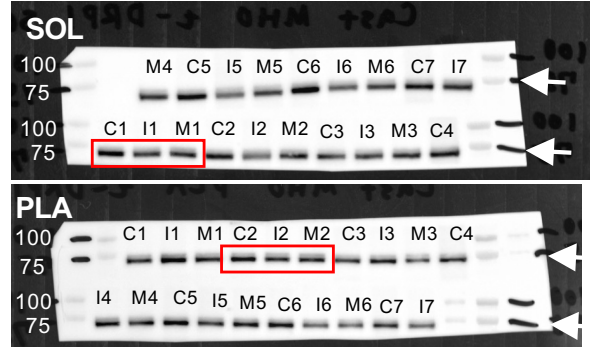
PGC-1α



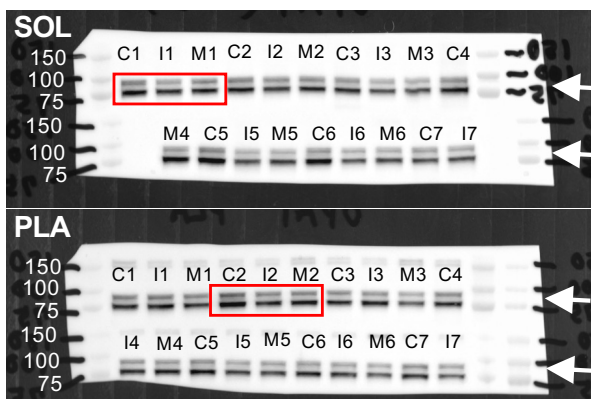
Fis1



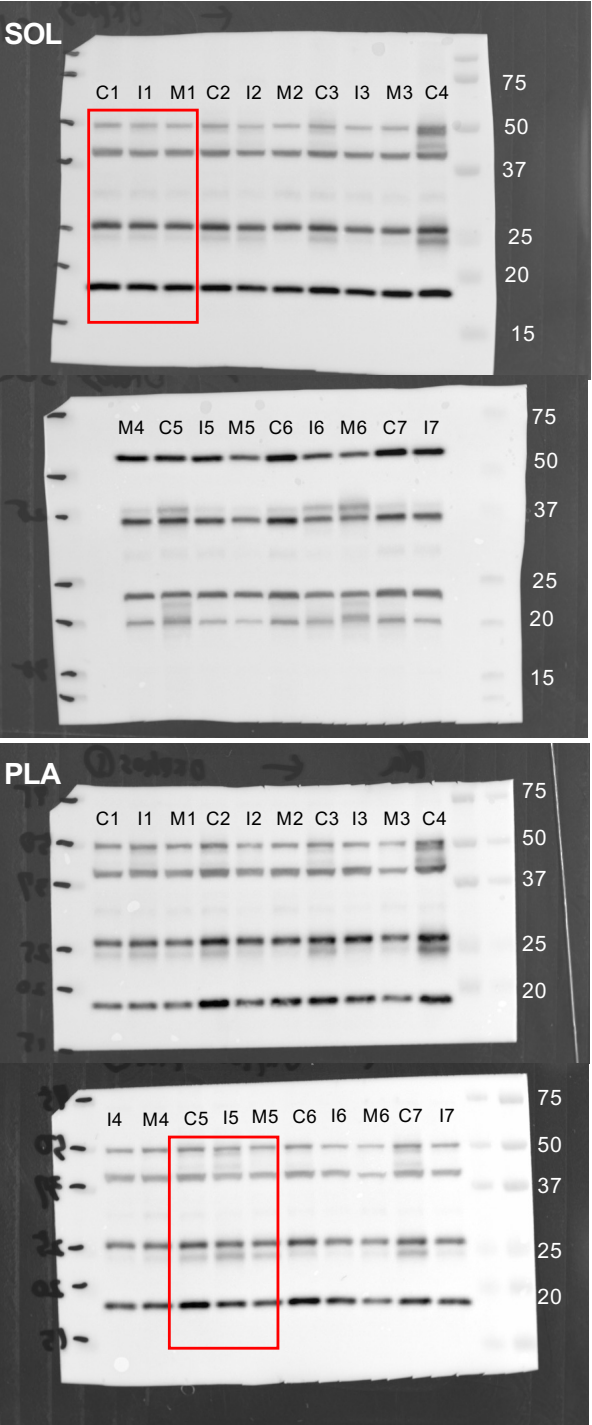
Drp1



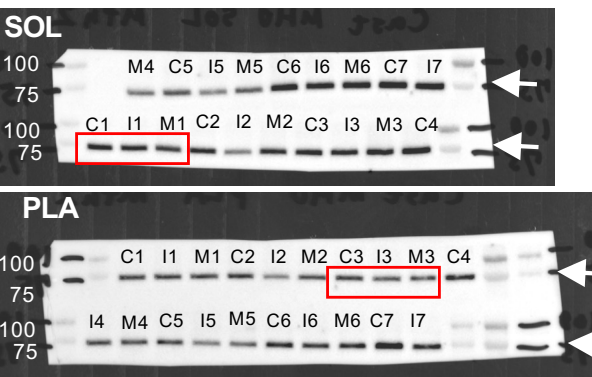
Opa1



OXPHOS



Mfn2

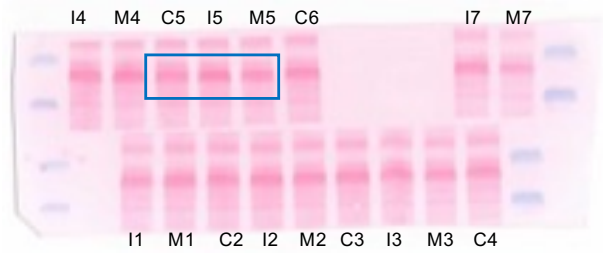


**Ponceau-S images**

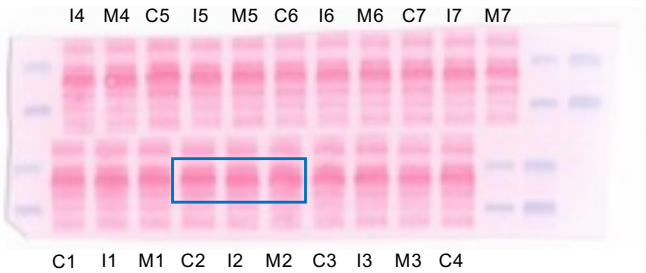
Membranes were cut prior to antibody incubation; full-length images are therefore unavailable.

**Acute (Fig. 3)**

**SOL**

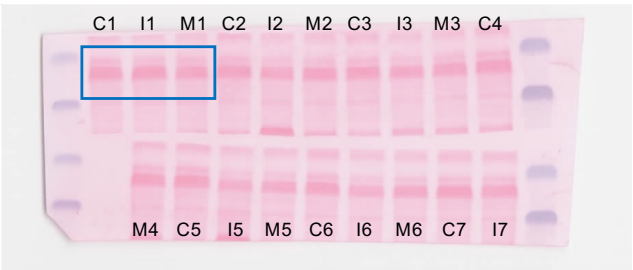


**PLA**

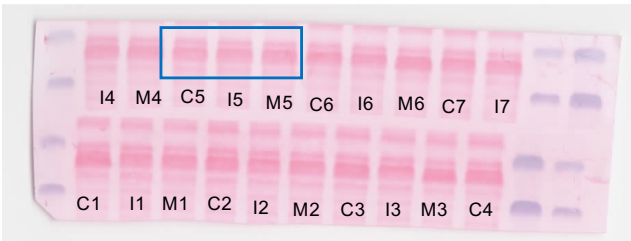


**Chronic (Fig. 6)**

**SOL**

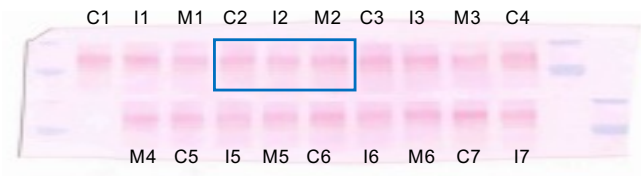


**PLA**

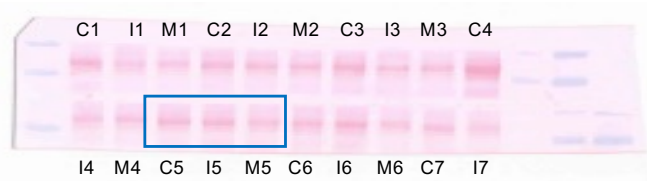


**Chronic (Fig. 7)**

**SOL**

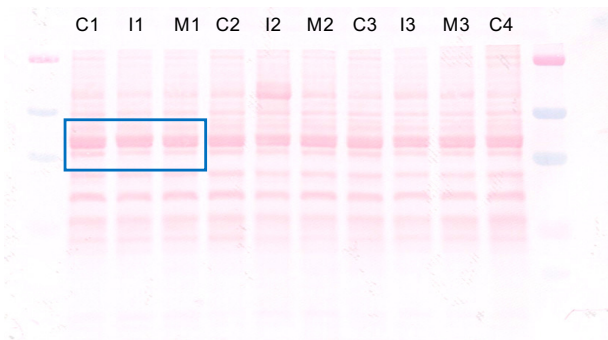


**PLA**

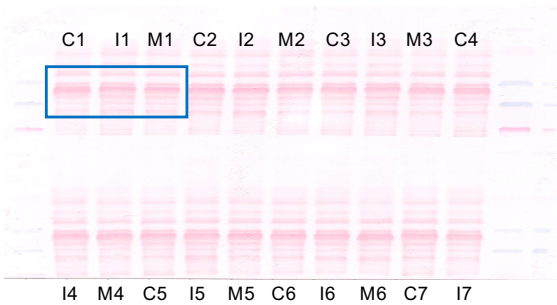


**Chronic (Fig. 8)**

**SOL**



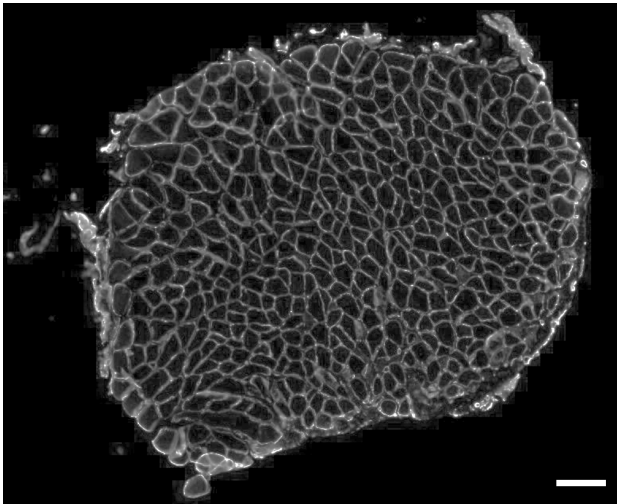
**PLA**



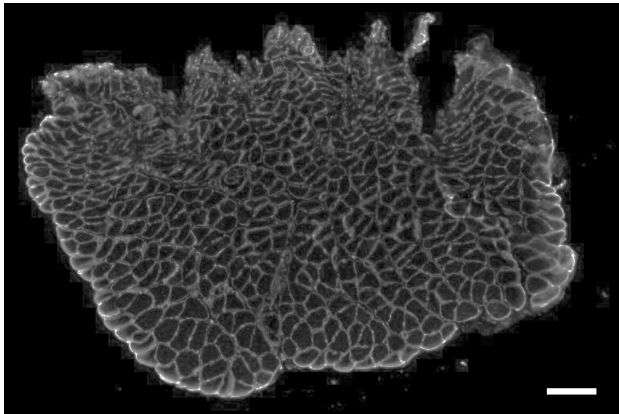
Supplementary Figure S2

**Chronic SOL**      Representative stitched laminin-stained muscle cross-sections used for CSA analysis are shown for each group. Scale bar = 100  $\mu$ m.

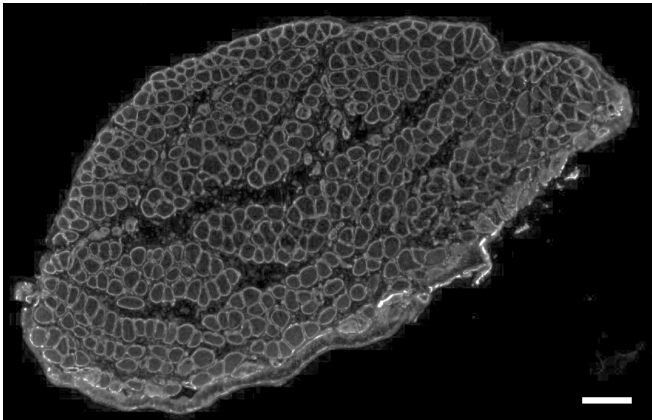
CON1



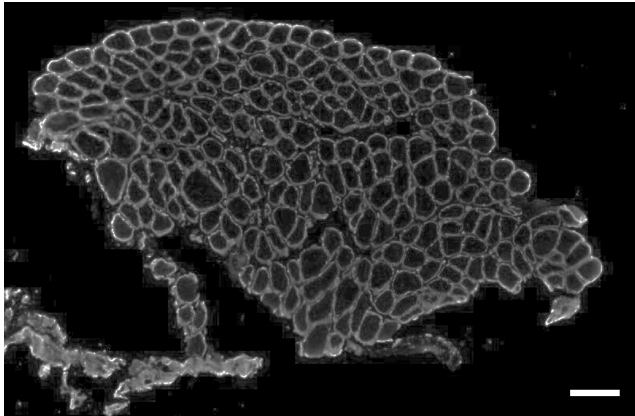
CON3



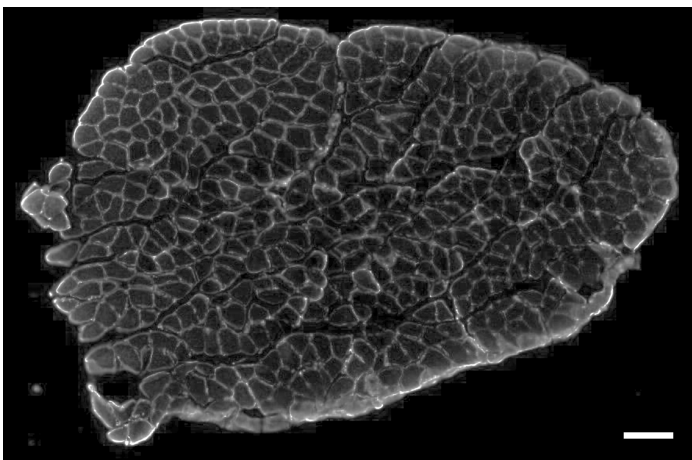
Cast2



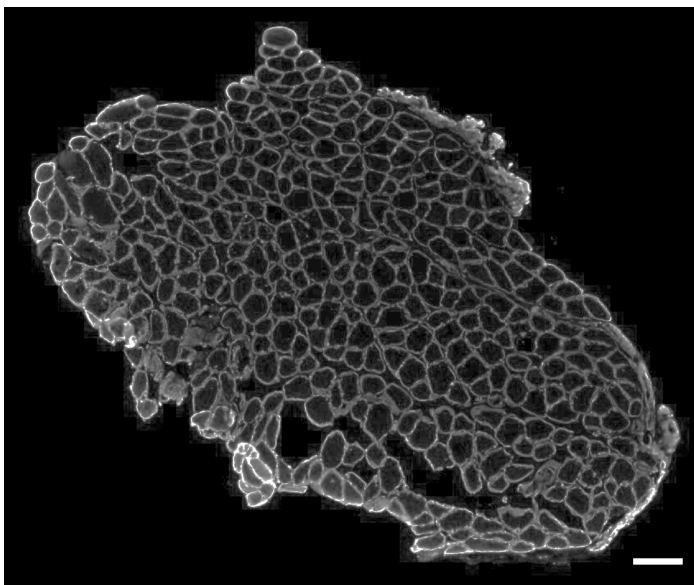
Cast4



Cast+MHO2



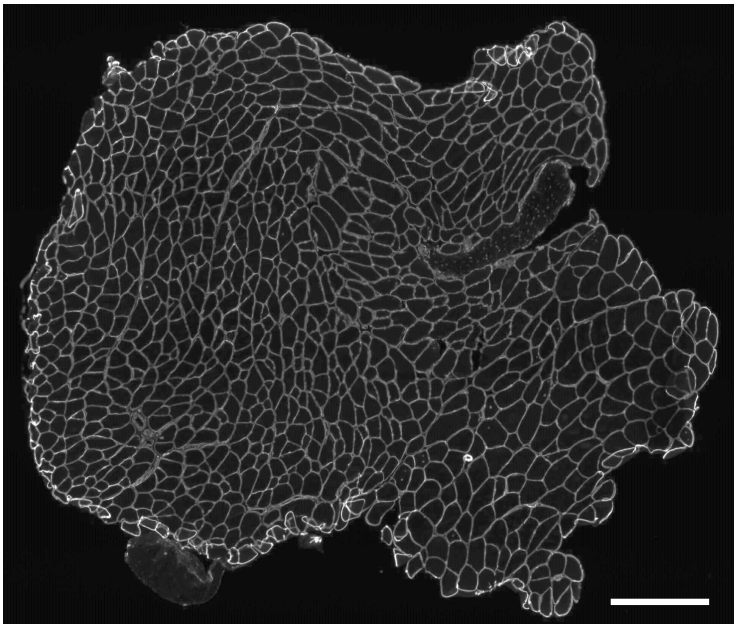
Cast+MHO4



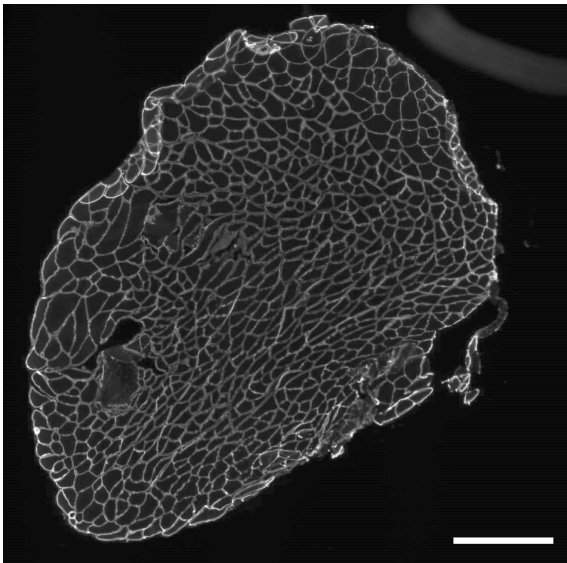
**Chronic**  
**PLA**

Representative stitched laminin-stained muscle cross-sections used for CSA analysis are shown for each group. Scale bar = 300  $\mu$ m.

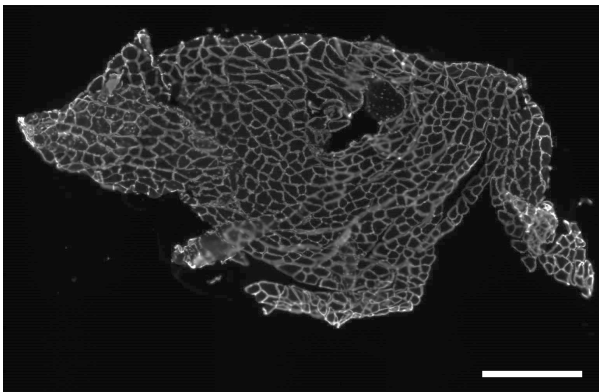
CON1



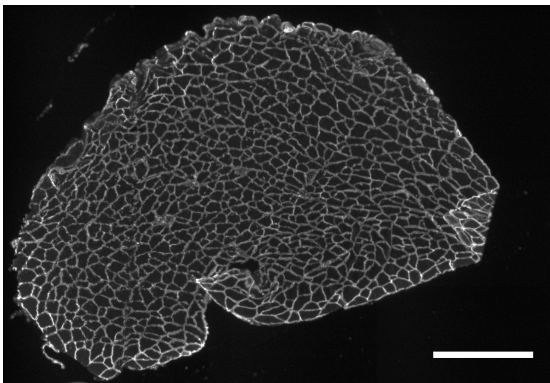
CON2



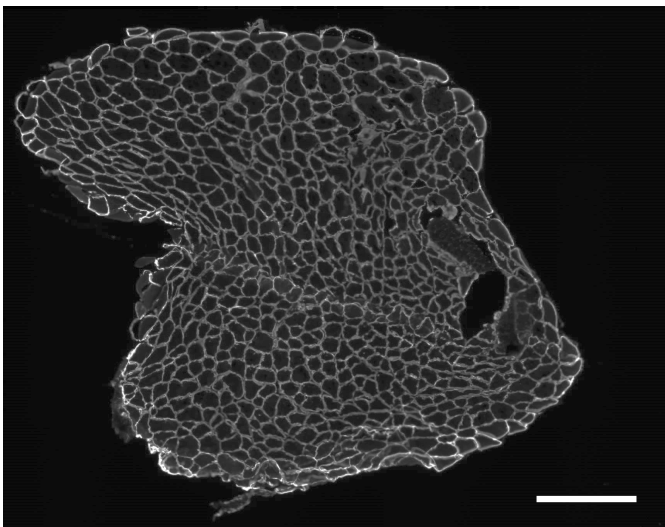
Cast3



Cast7



Cast+MHO2



Cast+MHO3

