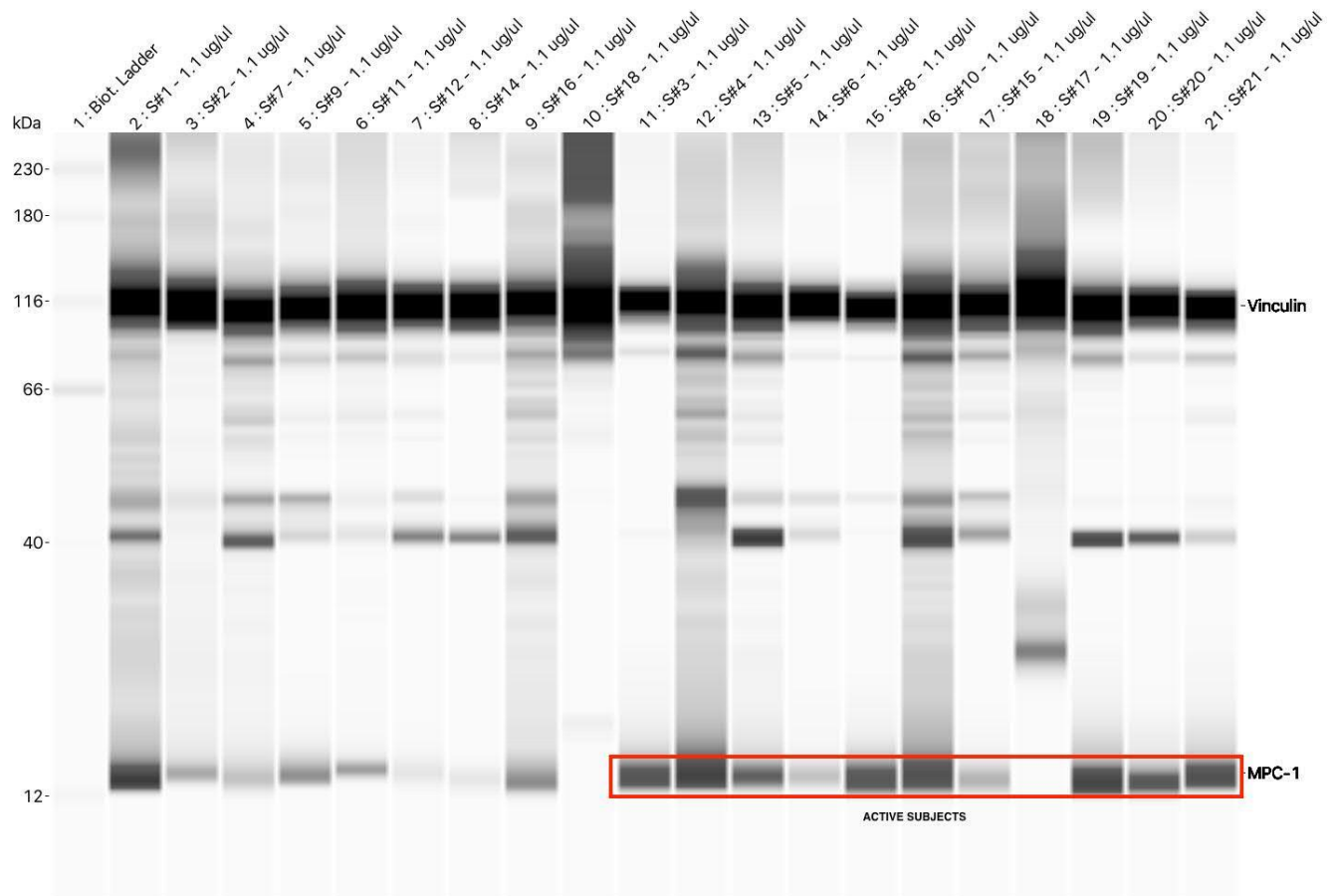


Supplementary Figure S1



Supplementary Figure S1. Representative Jess capillary electropherogram illustrating MPC1 (~12 kDa) and vinculin loading control (~116 kDa) protein expression across the full cohort. Lanes 2–10 correspond to sedentary (SED) individuals and lanes 11–21 to active (AC) individuals (1.1 $\mu\text{g}/\mu\text{L}$ total protein per lane; lane 1, biotinylated molecular weight ladder). The red box highlights the active subject group, in which MPC1 band intensity is visibly greater relative to sedentary individuals. Vinculin (~116 kDa) served as the total protein loading control. All samples were run at 1.1 $\mu\text{g}/\mu\text{L}$ using the Jess automated capillary Western system (ProteinSimple, San Jose, CA, USA) and Compass for Simple Western software (version 6.1.0). MPC1 antibody: Abcam, ab176559, Cambridge, UK.

Notes on representative figure status. Per editorial convention, this electropherogram is presented as representative of the MPC1 + vinculin Jess capillary runs across the cohort. Quantitative group comparisons reported in Figure 5B of the main text are based on Compass-derived peak areas normalised to vinculin and total protein within each capillary, not on visual band intensity.