

Reference	Generation	Age (mths)	Sex	Muscle groups	Muscle prep	Mitochondrial content	Mitochondrial function	Mitochondrial protein	H ₂ O ₂ , oxidative stress
Wisloff <i>et al.</i> (ref 49)	10 – 11	4 – 6	M	Sol	Homog	N/D	N/D	COX1 (ComplexIV), F0F1 ATPase: HCR > LCR	N/D
Naples <i>et al.</i> (ref 32)	20	5 – 6	F	RG	Homog, isolated mito	<u>EM:</u> HCR = LCR	<u>Homog:</u> βHAD activity: HCR = LCR <u>Mito:</u> Palmitate ox (¹⁴ CO ₂): HCR > LCR SOD2 activity: HCR < LCR	Cytochrome c: HCR > LCR	N/D
Rivas <i>et al.</i> (ref 38)	20	4	F	Whole hindlimb, RG, WG, sol, EDL	Perfused hindlimb, homog	<u>EM:</u> Sol: HCR = LCR EDL: HCR>LCR	<u>Perfused hindlimb:</u> Glucose uptake and ox: HCR > LCR Palmitate uptake and ox: HCR > LCR <u>Homog:</u> <i>Citrate synthase activity:</i> RG: HCR = LCR; WG: HCR > LCR	N/D	N/D
Tweedie <i>et al.</i> (ref 46)	21	14	M	Sol, RG	Fiber bundles	N/D	<i>O₂ consumption (state3, state 4, FCCP):</i> Sol: HCR > LCR; Sol/CS: HCR > LCR RG: HCR = LCR; RG/CS: HCR < LCR <i>Citrate synthase activity:</i> Sol: HCR = LCR; RG: HCR > LCR <i>SOD2 activity:</i> Sol: HCR > LCR; RG: HCR = LCR	N/D	<u>H₂O₂:</u> Sol: HCR > LCR Sol/CS: HCR > LCR RG: HCR > LCR RG/CS: HCR < LCR <u>8-dOHG (nDNA):</u> HCR < LCR
Current study	23	14 - 15	F	Whole hindlimb	Isolated mito	<u>Mito yield:</u> HCR > LCR	<i>O₂ consumption:</i> State3: HCR > LCR State4: HCR = LCR FCCP : HCR = LCR <i>Proton leak kinetics:</i> HCR = LCR	COX1 (ComplexIV), SOD2: HCR > LCR GPx4, UCP3, HXII, aconitase, and subunits from complex I, II, III: HCR = LCR	<u>H₂O₂:</u> HCR > LCR <u>4-HNE:</u> HCR < LCR

Supplemental Table. Summary of studies comparing mitochondrial content and function in skeletal muscle from HCR and LCR rats. Abbreviations: Sol: *soleus*; RG: red *gastrocnemius*; WG: white *gastrocnemius*; EDL: *extensor digitorum longus*; Homog: muscle homogenate; Mito: mitochondria; CS: citrate synthase activity; β HAD: β -hydroxy-acyl-CoA-dehydrogenase; 8-dOHG: 8-dihydroxy-guanosine; ox: oxidation