**Supplement Table 1.** Numerical data of COX IV expression, CS activity and complex activity activity



**Supplement Table 2.** Numerical data of mitochondrial respiration, RCR and CR ratio



**Supplement Table 3.** Numerical data of cAMP level (pmol/mg protein)



**Supplement Table 4.** Numerical data of p-PDE4A / t-PDE4A ratio (relative to DMSO, AU)



**Supplement Table 5.** Numerical data of p-AMPK (Thr-172)/t-AMPK ratio (relative to DMSO, AU)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | DMSO | CURC | H89 | H89 + CURC | Main Effect  | Interaction |
| Exercise | Treatment |
| non-Ex |  1.00 ± 0.09 |  1.27 ± 0.36 \* |  0.72 ± 0.20 †#‡ |  0.70 ± 0.16 †#‡ |  P < 0.05non-Ex < Ex | P < 0.05H89 & H89+CURC < DMSO < CURC  | P < 0.05 |
| Ex |  1.73 ± 0.32 \*†  |  1.83 ± 0.24 \*†  |  0.89 ± 0.07 #‡  |  0.75 ± 0.12 †#‡ |
|   |   |   |   |   |   |   |   |
| Values are presented as mean ± SD, n = 6. CURC: curcumin (100 mg/kg-BW/day). H89 = PKA inhibitor (20 mg/kg-BW/day). Ex: Exercise. \*: significantly different from DMSO without exercise (P < 0.05). †: significantly different from curcumin without exercise (P < 0.05). #: significantly different from DMSO with exercise (P < 0.05). ‡: significantly different from curcumin with exercise (P < 0.05). |

**Supplement Table 6.** Numerical data of acetylated PGC-1α expression (relative to DMSO, AU)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | DMSO | CURC | H89 |  H89 + CURC | Main Effect  | Interaction |
| Exercise | Treatment |
| non-Ex | 1.00 ± 0.26 | 0.78 ± 0.21 | 0.93 ± 0.11 | 0.82 ± 0.06 |  P < 0.05Ex < non-Ex | P < 0.05 CURC < DMSO, H89 & H89 + CURC | n.s |
| Ex | 0.41 ± 0.05 | 0.32 ± 0.10 | 0.42 ± 0.06 | 0.30 ± 0.05 |
|   |   |   |   |   |   |   |   |
| Values are presented as mean ± SD, n = 6. CURC: curcumin (100 mg/kg-BW/day). H89 = PKA inhibitor (20 mg/kg-BW/day). Ex: Exercise.  |