

## Gastroc Synthesis Rates (K(1/ day))

|          | HCR Con |          | HCR MET |             | HCRWO  |             | LCR Con |          | LCR MET |             | LCRWO  |             |
|----------|---------|----------|---------|-------------|--------|-------------|---------|----------|---------|-------------|--------|-------------|
| Ndufa2   | 0.0308  | ± 0.0100 | 0.0485  | ± 0.0345    | 0.0313 | ± 0.0074    | 0.0182  | ± 0.0059 | 0.0387  | ± 0.0208    | 0.0446 | ± 0.0311    |
| Ndufa3   | 0.0141  | ± 0.0047 | 0.0183  | ± 0.0061    | 0.0313 | ± 0.0038 ‡  | 0.0199  | ± 0.0072 | 0.0235  | ± 0.0057    | 0.0198 | ± 0.0046    |
| Ndufa4   | 0.0428  | ± 0.0133 | 0.0396  | ± 0.0101    | 0.0505 | ± 0.0102    | 0.0486  | ± 0.0193 | 0.0554  | ± 0.0154    | 0.0535 | ± 0.0142    |
| Ndufa5   | 0.0589  | ± 0.0188 | 0.0523  | ± 0.0399    | 0.0484 | ± 0.0170    | 0.0465  | ± 0.0245 | 0.0783  | ± 0.0683    | 0.0586 | ± 0.0276    |
| Ndufa6   | 0.0614  | ± 0.0160 | 0.0608  | ± 0.0260    | 0.0868 | ± 0.0420    | 0.0561  | ± 0.0213 | 0.0574  | ± 0.0285    | 0.1224 | ± 0.0991 \$ |
| Ndufa7   | 0.0592  | ± 0.0140 | 0.0828  | ± 0.0744    | 0.0643 | ± 0.0138    | 0.0747  | ± 0.0368 | 0.0749  | ± 0.0276    | 0.0827 | ± 0.0244    |
| Ndufa8   | 0.0276  | ± 0.0061 | 0.0266  | ± 0.0104    | 0.0268 | ± 0.0049    | 0.0312  | ± 0.0100 | 0.0239  | ± 0.0089    | 0.0308 | ± 0.0080    |
| Ndufa9   | 0.0544  | ± 0.0150 | 0.0567  | ± 0.0083    | 0.0558 | ± 0.0116    | 0.0537  | ± 0.0118 | 0.0639  | ± 0.0098    | 0.0548 | ± 0.0147    |
| Ndufa10  | 0.0595  | ± 0.0108 | 0.0673  | ± 0.0168    | 0.0618 | ± 0.0138    | 0.0624  | ± 0.0258 | 0.0601  | ± 0.0112    | 0.0657 | ± 0.0136    |
| Ndufa11  | 0.0581  | ± 0.0054 | 0.0703  | ± 0.0090 \$ | 0.0554 | ± 0.0098 †  | 0.0607  | ± 0.0071 | 0.0558  | ± 0.0064    | 0.0775 | ± 0.0127 ‡  |
| Ndufa12  | 0.0440  | ± 0.0050 | 0.0377  | ± 0.0083    | 0.0406 | ± 0.0041    | 0.0423  | ± 0.0096 | 0.0376  | ± 0.0116    | 0.0464 | ± 0.0080    |
| Ndufb5   | 0.0302  | ± 0.0024 | 0.0146  | ± 0.0043 \$ | 0.0205 | ± 0.0023 ‡  | 0.0222  | ± 0.0033 | 0.0270  | ± 0.0032 \$ | 0.0195 | ± 0.0046 †  |
| Ndufb6   | 0.0172  | ± 0.0128 | 0.0000  | ± 0.0000 \$ | 0.0120 | ± 0.0047 †  | 0.0072  | ± 0.0072 | 0.0073  | ± 0.0062    | 0.0047 | ± 0.0000    |
| Ndufb7   | 0.0177  | ± 0.0042 | 0.0118  | ± 0.0001 \$ | 0.0198 | ± 0.0073 †  | 0.0133  | ± 0.0001 | 0.0077  | ± 0.0011 \$ | 0.0162 | ± 0.0047 †  |
| Ndufb10  | 0.0256  | ± 0.0090 | 0.0279  | ± 0.0092    | 0.0299 | ± 0.0062    | 0.0313  | ± 0.0106 | 0.0215  | ± 0.0138    | 0.0362 | ± 0.0114 †  |
| Ndufb11  | 0.0288  | ± 0.0028 | 0.0200  | ± 0.0036    | 0.0328 | ± 0.0030 †  | 0.0282  | ± 0.0044 | 0.0291  | ± 0.0066    | 0.0280 | ± 0.0033    |
| Ndufc2   | 0.0263  | ± 0.0043 | 0.0137  | ± 0.0051 \$ | 0.0261 | ± 0.0018 †  | 0.0236  | ± 0.0025 | 0.0195  | ± 0.0025    | 0.0250 | ± 0.0050 †  |
| Nd1      | 0.0234  | ± 0.0063 | 0.0000  | ± 0.0000 \$ | 0.0165 | ± 0.0038 †  | 0.0182  | ± 0.0061 | 0.0025  | ± 0.0025 \$ | 0.0162 | ± 0.0082 †  |
| Nd4      | 0.0298  | ± 0.0048 | 0.0154  | ± 0.0010 \$ | 0.0259 | ± 0.0058 †  | 0.0272  | ± 0.0093 | 0.0162  | ± 0.0001 \$ | 0.0274 | ± 0.0057 †  |
| Nd5      | 0.0435  | ± 0.0022 | 0.0427  | ± 0.0028    | 0.0465 | ± 0.0046    | 0.0491  | ± 0.0046 | 0.0480  | ± 0.0055    | 0.0542 | ± 0.0053 †  |
| Ndufs1   | 0.0591  | ± 0.0055 | 0.0542  | ± 0.0095    | 0.0606 | ± 0.0062    | 0.0587  | ± 0.0050 | 0.0627  | ± 0.0090    | 0.0646 | ± 0.0075    |
| Ndufs2   | 0.0468  | ± 0.0044 | 0.0482  | ± 0.0078    | 0.0510 | ± 0.0070    | 0.0410  | ± 0.0044 | 0.0520  | ± 0.0103 \$ | 0.0553 | ± 0.0040 \$ |
| Ndufs3   | 0.0490  | ± 0.0067 | 0.0478  | ± 0.0082    | 0.0540 | ± 0.0077    | 0.0491  | ± 0.0056 | 0.0566  | ± 0.0078    | 0.0614 | ± 0.0069 \$ |
| Ndufs5   | 0.0374  | ± 0.0054 | 0.0343  | ± 0.0117    | 0.0363 | ± 0.0069    | 0.0344  | ± 0.0108 | 0.0354  | ± 0.0098    | 0.0331 | ± 0.0098    |
| Ndufs6   | 0.0921  | ± 0.0172 | 0.0894  | ± 0.0134    | 0.0886 | ± 0.0067    | 0.0644  | ± 0.0114 | 0.0740  | ± 0.0185    | 0.1105 | ± 0.0294 ‡  |
| Ndufs7   | 0.0768  | ± 0.0143 | 0.0713  | ± 0.0264    | 0.0750 | ± 0.0160    | 0.0667  | ± 0.0190 | 0.0696  | ± 0.0223    | 0.0712 | ± 0.0210    |
| Ndufv1   | 0.0499  | ± 0.0092 | 0.0408  | ± 0.0131    | 0.0483 | ± 0.0119    | 0.0439  | ± 0.0149 | 0.0604  | ± 0.0444    | 0.0609 | ± 0.0116    |
| Ndufv2   | 0.0647  | ± 0.0187 | 0.0677  | ± 0.0279    | 0.0717 | ± 0.0130    | 0.0733  | ± 0.0208 | 0.0730  | ± 0.0304    | 0.0718 | ± 0.0125    |
| SdhA     | 0.0548  | ± 0.0086 | 0.0524  | ± 0.0088    | 0.0540 | ± 0.0045    | 0.0537  | ± 0.0089 | 0.0650  | ± 0.0163    | 0.0589 | ± 0.0096    |
| SdhB     | 0.0547  | ± 0.0137 | 0.0629  | ± 0.0181    | 0.0521 | ± 0.0102    | 0.0721  | ± 0.0213 | 0.0613  | ± 0.0251    | 0.0631 | ± 0.0239    |
| SdhC     | 0.0410  | ± 0.0028 | 0.0377  | ± 0.0041    | 0.0441 | ± 0.0075    | 0.0392  | ± 0.0042 | 0.0295  | ± 0.0028    | 0.0390 | ± 0.0195    |
| Cytb     | 0.0471  | ± 0.0106 | 0.0311  | ± 0.0058    | 0.0527 | ± 0.0102 †  | 0.0371  | ± 0.0115 | 0.0387  | ± 0.0193    | 0.0563 | ± 0.0228    |
| Cyc1     | 0.0330  | ± 0.0041 | 0.0334  | ± 0.0040    | 0.0334 | ± 0.0031    | 0.0399  | ± 0.0055 | 0.0290  | ± 0.0060 \$ | 0.0499 | ± 0.0071 ‡  |
| Uqcrc1   | 0.0222  | ± 0.0082 | 0.0265  | ± 0.0082    | 0.0263 | ± 0.0059    | 0.0303  | ± 0.0137 | 0.0324  | ± 0.0148    | 0.0359 | ± 0.0160    |
| Uqcrc2   | 0.0261  | ± 0.0053 | 0.0216  | ± 0.0096 \$ | 0.0308 | ± 0.0059 \$ | 0.0357  | ± 0.0116 | 0.0355  | ± 0.0148 \$ | 0.0399 | ± 0.0147 †  |
| Uqcrb    | 0.0507  | ± 0.0118 | 0.0457  | ± 0.0082    | 0.0353 | ± 0.0072 \$ | 0.0524  | ± 0.0104 | 0.0624  | ± 0.0120    | 0.0634 | ± 0.0108    |
| Uqcrh    | 0.0198  | ± 0.0048 | 0.0260  | ± 0.0035 \$ | 0.0272 | ± 0.0019 \$ | 0.0291  | ± 0.0047 | 0.0283  | ± 0.0030    | 0.0327 | ± 0.0026    |
| Uqcrcq   | 0.0289  | ± 0.0045 | 0.0553  | ± 0.0072    | 0.0262 | ± 0.0055    | 0.1061  | ± 0.0176 | 0.1668  | ± 0.0635 \$ | 0.0609 | ± 0.0158 ‡  |
| Uqcrcfs1 | 0.0226  | ± 0.0066 | 0.0316  | ± 0.0116    | 0.0277 | ± 0.0050    | 0.0351  | ± 0.0108 | 0.0324  | ± 0.0104    | 0.0323 | ± 0.0099    |
| Uqcr10   | 0.0183  | ± 0.0079 | 0.0155  | ± 0.0047    | 0.0240 | ± 0.0078    | 0.0322  | ± 0.0140 | 0.0332  | ± 0.0108    | 0.0399 | ± 0.0177    |
| Uqcr11   | 0.0221  | ± 0.0062 | 0.0167  | ± 0.0084    | 0.0394 | ± 0.0058 ‡  | 0.0333  | ± 0.0098 | 0.0443  | ± 0.0155    | 0.0274 | ± 0.0125 †  |
| Uqcc2    | 0.0472  | ± 0.0061 | 0.0580  | ± 0.0037    | 0.0615 | ± 0.0064    | 0.0508  | ± 0.0054 | 0.0411  | ± 0.0052    | 0.0515 | ± 0.0042    |
| Ttc19    | 0.0129  | ± 0.0047 | 0.0082  | ± 0.0022    | 0.0167 | ± 0.0041 †  | 0.0101  | ± 0.0043 | 0.0103  | ± 0.0041    | 0.0130 | ± 0.0072    |
| Mtco1    | 0.0563  | ± 0.0049 | 0.0593  | ± 0.0124    | 0.0602 | ± 0.0037    | 0.0496  | ± 0.0052 | 0.0633  | ± 0.0058 \$ | 0.0576 | ± 0.0040    |
| Mtco2    | 0.0283  | ± 0.0053 | 0.0281  | ± 0.0047    | 0.0269 | ± 0.0041    | 0.0340  | ± 0.0042 | 0.0403  | ± 0.0188    | 0.0338 | ± 0.0067    |
| Cox4i1   | 0.0356  | ± 0.0057 | 0.0305  | ± 0.0054    | 0.0376 | ± 0.0040    | 0.0394  | ± 0.0084 | 0.0408  | ± 0.0064    | 0.0415 | ± 0.0060    |
| Cox5a    | 0.0393  | ± 0.0052 | 0.0403  | ± 0.0080    | 0.0352 | ± 0.0029    | 0.0566  | ± 0.0044 | 0.0387  | ± 0.0071 \$ | 0.0553 | ± 0.0043 †  |
| Cox5b    | 0.0258  | ± 0.0046 | 0.0235  | ± 0.0085    | 0.0266 | ± 0.0059    | 0.0290  | ± 0.0077 | 0.0285  | ± 0.0094    | 0.0321 | ± 0.0072    |
| Cox6a2   | 0.0135  | ± 0.0015 | 0.0176  | ± 0.0050 \$ | 0.0226 | ± 0.0025 ‡  | 0.0189  | ± 0.0031 | 0.0165  | ± 0.0019    | 0.0244 | ± 0.0016 ‡  |
| Cox6b1   | 0.0369  | ± 0.0105 | 0.0436  | ± 0.0139    | 0.0369 | ± 0.0075    | 0.0448  | ± 0.0191 | 0.0384  | ± 0.0191    | 0.0483 | ± 0.0133    |
| Cox6c    | 0.0316  | ± 0.0024 | 0.0259  | ± 0.0024 \$ | 0.0336 | ± 0.0015 †  | 0.0386  | ± 0.0024 | 0.0366  | ± 0.0035    | 0.0354 | ± 0.0033    |
| Atp5a1   | 0.0296  | ± 0.0051 | 0.0276  | ± 0.0049    | 0.0311 | ± 0.0055    | 0.0357  | ± 0.0051 | 0.0390  | ± 0.0094    | 0.0413 | ± 0.0061    |
| Atp5b    | 0.0319  | ± 0.0046 | 0.0328  | ± 0.0052    | 0.0346 | ± 0.0077    | 0.0365  | ± 0.0062 | 0.0326  | ± 0.0149    | 0.0429 | ± 0.0121    |
| Atp5c1   | 0.0182  | ± 0.0046 | 0.0166  | ± 0.0083    | 0.0213 | ± 0.0077    | 0.0249  | ± 0.0084 | 0.0351  | ± 0.0215    | 0.0262 | ± 0.0098    |
| Atp5d    | 0.0252  | ± 0.0048 | 0.0227  | ± 0.0058    | 0.0269 | ± 0.0042    | 0.0337  | ± 0.0049 | 0.0281  | ± 0.0071    | 0.0325 | ± 0.0040    |
| Atp5e    | 0.0000  | ± 0.0000 | 0.0088  | ± 0.0044 \$ | 0.0079 | ± 0.0029 \$ | 0.0080  | ± 0.0040 | 0.0120  | ± 0.0060    | 0.0047 | ± 0.0023 †  |
| Atp5f1   | 0.0184  | ± 0.0080 | 0.0121  | ± 0.0052    | 0.0185 | ± 0.0065    | 0.0140  | ± 0.0057 | 0.0144  | ± 0.0073    | 0.0214 | ± 0.0085    |
| Atp5h    | 0.0252  | ± 0.0097 | 0.0262  | ± 0.0113    | 0.0297 | ± 0.0068    | 0.0263  | ± 0.0135 | 0.0427  | ± 0.0237    | 0.0365 | ± 0.0167    |
| Atp5i    | 0.0134  | ± 0.0047 | 0.0085  | ± 0.0040    | 0.0120 | ± 0.0053    | 0.0208  | ± 0.0085 | 0.0189  | ± 0.0123    | 0.0153 | ± 0.0070    |
| Atp5j2   | 0.0204  | ± 0.0045 | 0.0197  | ± 0.0089    | 0.0172 | ± 0.0037    | 0.0218  | ± 0.0076 | 0.0221  | ± 0.0088    | 0.0237 | ± 0.0092    |
| Atp5l    | 0.0396  | ± 0.0079 | 0.0408  | ± 0.0092    | 0.0381 | ± 0.0069 \$ | 0.0409  | ± 0.0141 | 0.0382  | ± 0.0099    | 0.0513 | ± 0.0116 ‡  |
| Atp5o    | 0.0004  | ± 0.0002 | 0.0063  | ± 0.0027 \$ | 0.0123 | ± 0.0036 ‡  | 0.0064  | ± 0.0016 | 0.0099  | ± 0.0044    | 0.0207 | ± 0.0033 ‡  |

**Supplemental Table 2:** The relative abundance of mitochondrial ETS proteins in the gastroc.

Data were analyzed by two-way ANOVA (group x treatment) and are represented as mean from 5-7 rats per group. Data are in mean ± SD where \$ indicates a significant difference from CON, † indicates a significant difference from MET and ‡ indicates significant differences from CON and MET.