

Table S2 Fold change of copy number of mitochondrial and nuclear genes in wild-type inbred B and mitochondrial mutants MSC3, 12 and 16.

| Gene | Line | Average Fold-change | S.E. | t-test |
|----------------------------|--------|---------------------|------|---------|
| <i>gadph</i> ⁿ | Line B | 0.89 | 0.06 | CONTROL |
| <i>gadph</i> ⁿ | MSC3 | 0.86 | 0.10 | 0.4059 |
| <i>gadph</i> ⁿ | MSC12 | 0.79 | 0.05 | 0.1267 |
| <i>gadph</i> ⁿ | MSC16 | 0.83 | 0.05 | 0.2371 |
| <i>actin3</i> ⁿ | Line B | 1.00 | 0.06 | CONTROL |
| <i>actin3</i> ⁿ | MSC3 | 1.21 | 0.08 | 0.0574 |
| <i>actin3</i> ⁿ | MSC12 | 1.05 | 0.04 | 0.2899 |
| <i>actin3</i> ⁿ | MSC16 | 1.08 | 0.08 | 0.2600 |
| <i>nad9</i> | Line B | 1.00 | 0.02 | CONTROL |
| <i>nad9</i> | MSC3 | 1.38 | 0.22 | 0.0782 |
| <i>nad9</i> | MSC12 | 2.60 | 0.25 | 0.0016* |
| <i>nad9</i> | MSC16 | 1.88 | 0.16 | 0.0031* |
| <i>cob</i> | Line B | 1.00 | 0.02 | CONTROL |
| <i>cob</i> | MSC3 | 1.29 | 0.05 | 0.0034* |
| <i>cob</i> | MSC12 | 1.47 | 0.20 | 0.0400* |
| <i>cob</i> | MSC16 | 1.32 | 0.08 | 0.0096* |
| <i>rps7</i> | Line B | 1.02 | 0.15 | CONTROL |
| <i>rps7</i> | MSC3 | 0.92 | 0.16 | 0.3371 |
| <i>rps7</i> | MSC12 | 0.12 | 0.04 | 0.0021* |
| <i>rps7</i> | MSC16 | 0.12 | 0.05 | 0.0023* |
| <i>ccmFc</i> | Line B | 1.00 | 0.04 | CONTROL |
| <i>ccmFc</i> | MSC3 | 1.31 | 0.16 | 0.0715 |
| <i>ccmFc</i> | MSC12 | 2.09 | 0.32 | 0.0143* |

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|-------------------------|--------|------|------|---------|
| <i>ccmFc</i> | MSC16 | 2.38 | 0.75 | 0.0716 |
| <i>nad7</i> | Line B | 1.00 | 0.07 | CONTROL |
| <i>nad7</i> | MSC3 | 1.04 | 0.12 | 0.4124 |
| <i>nad7</i> | MSC12 | 1.23 | 0.18 | 0.1535 |
| <i>nad7</i> | MSC16 | 1.08 | 0.12 | 0.2998 |
| <i>ccmB</i> | Line B | 1.05 | 0.23 | CONTROL |
| <i>ccmB</i> | MSC3 | 1.30 | 0.21 | 0.2366 |
| <i>ccmB</i> | MSC12 | 1.68 | 0.17 | 0.0482* |
| <i>ccmB</i> | MSC16 | 1.59 | 0.28 | 0.1039 |
| <i>atp1</i> | Line B | 1.03 | 0.16 | CONTROL |
| <i>atp1</i> | MSC3 | 1.16 | 0.14 | 0.2794 |
| <i>atp1</i> | MSC12 | 2.22 | 0.26 | 0.0089* |
| <i>atp1</i> | MSC16 | 2.42 | 0.24 | 0.0042* |
| <i>cox1</i> | Line B | 1.01 | 0.10 | CONTROL |
| <i>cox1</i> | MSC3 | 1.20 | 0.25 | 0.2568 |
| <i>cox1</i> | MSC12 | 1.71 | 0.17 | 0.0116* |
| <i>cox1</i> | MSC16 | 2.04 | 0.28 | 0.0127* |
| <i>nad6</i> | Line B | 1.01 | 0.10 | CONTROL |
| <i>nad6</i> | MSC3 | 1.27 | 0.14 | 0.0985 |
| <i>nad6</i> | MSC12 | 2.15 | 0.17 | 0.0023* |
| <i>nad6</i> | MSC16 | 2.38 | 0.25 | 0.0039* |
| <i>ubqcⁿ</i> | Line B | 1.00 | 0.00 | CONTROL |
| <i>ubqcⁿ</i> | MSC3 | 1.11 | 0.12 | 0.2041 |
| <i>ubqcⁿ</i> | MSC12 | 1.05 | 0.09 | 0.2886 |
| <i>ubqcⁿ</i> | MSC16 | 1.03 | 0.10 | 0.3820 |
| <i>sdh3</i> | Line B | 1.04 | 0.25 | CONTROL |

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|-------------|--------|------|------|---------|
| <i>sdh3</i> | MSC3 | 1.23 | 0.07 | 0.2100 |
| <i>sdh3</i> | MSC12 | 2.09 | 0.09 | 0.0048* |
| <i>sdh3</i> | MSC16 | 2.16 | 0.36 | 0.0265* |
| <i>nad3</i> | Line B | 1.02 | 0.16 | CONTROL |
| <i>nad3</i> | MSC3 | 1.43 | 0.16 | 0.0741 |
| <i>nad3</i> | MSC12 | 2.00 | 0.08 | 0.0029* |
| <i>nad3</i> | MSC16 | 1.88 | 0.33 | 0.0402* |
| <i>rrn5</i> | Line B | 1.01 | 0.12 | CONTROL |
| <i>rrn5</i> | MSC3 | 1.05 | 0.10 | 0.4057 |
| <i>rrn5</i> | MSC12 | 1.17 | 0.00 | 0.1311 |
| <i>rrn5</i> | MSC16 | 1.26 | 0.05 | 0.0683 |
| <i>rpl2</i> | Line B | 1.00 | 0.04 | CONTROL |
| <i>rpl2</i> | MSC3 | 1.00 | 0.08 | 0.4799 |
| <i>rpl2</i> | MSC12 | 1.86 | 0.07 | 0.0003* |
| <i>rpl2</i> | MSC16 | 2.10 | 0.12 | 0.0006* |
| <i>rps3</i> | Line B | 1.01 | 0.12 | CONTROL |
| <i>rps3</i> | MSC3 | 1.40 | 0.16 | 0.0660 |
| <i>rps3</i> | MSC12 | 2.31 | 0.20 | 0.0025* |
| <i>rps3</i> | MSC16 | 2.53 | 0.20 | 0.0015* |
| <i>rpl5</i> | Line B | 1.00 | 0.07 | CONTROL |
| <i>rpl5</i> | MSC3 | 1.38 | 0.19 | 0.0710 |
| <i>rpl5</i> | MSC12 | 2.05 | 0.32 | 0.0171* |
| <i>rpl5</i> | MSC16 | 2.86 | 0.34 | 0.0030* |
| <i>nad5</i> | Line B | 1.03 | 0.19 | CONTROL |
| <i>nad5</i> | MSC3 | 0.36 | 0.11 | 0.0194* |
| <i>nad5</i> | MSC12 | 1.85 | 0.39 | 0.0661 |

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|----------------------------|--------|-------|-------|---------|
| <i>nad5</i> | MSC16 | 1.47 | 0.20 | 0.0931 |
| <i>atp4</i> | Line B | 1.03 | 0.19 | CONTROL |
| <i>atp4</i> | MSC3 | 0.43 | 0.04 | 0.0182* |
| <i>atp4</i> | MSC12 | 1.69 | 0.31 | 0.0724 |
| <i>atp4</i> | MSC16 | 1.88 | 0.19 | 0.0170* |
| <i>rrnS</i> | Line B | 1.01 | 0.12 | CONTROL |
| <i>rrnS</i> | MSC3 | 1.06 | 0.11 | 0.4046 |
| <i>rrnS</i> | MSC12 | 1.29 | 0.06 | 0.0556 |
| <i>rrnS</i> | MSC16 | 1.39 | 0.11 | 0.0432* |
| <i>aox</i> ^{nm} | Line B | 1.00 | 0.07 | CONTROL |
| <i>aox</i> ^{nm} | MSC3 | 1.21 | 0.22 | 0.2082 |
| <i>aox</i> ^{nm} | MSC12 | 1.00 | 0.07 | 0.4992 |
| <i>aox</i> ^{nm} | MSC16 | 1.24 | 0.10 | 0.0640 |
| <i>porin</i> ^{nm} | Line B | 1.16 | 0.47 | CONTROL |
| <i>porin</i> ^{nm} | MSC3 | 34.74 | 33.31 | 0.1853 |
| <i>porin</i> ^{nm} | MSC12 | 0.80 | 0.20 | 0.2589 |
| <i>porin</i> ^{nm} | MSC16 | 2.34 | 1.03 | 0.1788 |
| <i>cox2</i> | Line B | 1.00 | 0.07 | CONTROL |
| <i>cox2</i> | MSC3 | 1.12 | 0.30 | 0.3596 |
| <i>cox2</i> | MSC12 | 1.79 | 0.14 | 0.0040* |
| <i>cox2</i> | MSC16 | 1.95 | 0.04 | 0.0002* |
| <i>rps13</i> | Line B | 1.04 | 0.21 | CONTROL |
| <i>rps13</i> | MSC3 | 1.33 | 0.23 | 0.1968 |
| <i>rps13</i> | MSC12 | 2.19 | 0.00 | 0.0025* |
| <i>rps13</i> | MSC16 | 2.05 | 0.30 | 0.0253* |
| <i>mttb</i> | Line B | 1.06 | 0.26 | CONTROL |

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|--------------|--------|------|------|---------|
| <i>mttb</i> | MSC3 | 1.42 | 0.11 | 0.1383 |
| <i>mttb</i> | MSC12 | 2.46 | 0.06 | 0.0033* |
| <i>mttb</i> | MSC16 | 2.26 | 0.23 | 0.0130* |
| <i>rps10</i> | Line B | 1.00 | 0.08 | CONTROL |
| <i>rps10</i> | MSC3 | 1.12 | 0.05 | 0.1431 |
| <i>rps10</i> | MSC12 | 2.02 | 0.24 | 0.0080* |
| <i>rps10</i> | MSC16 | 2.25 | 0.13 | 0.0007* |
| <i>atp8</i> | Line B | 1.00 | 0.04 | CONTROL |
| <i>atp8</i> | MSC3 | 1.15 | 0.09 | 0.0998 |
| <i>atp8</i> | MSC12 | 1.55 | 0.04 | 0.0003* |
| <i>atp8</i> | MSC16 | 1.82 | 0.04 | 0.0001* |
| <i>rrnL</i> | Line B | 1.00 | 0.04 | CONTROL |
| <i>rrnL</i> | MSC3 | 1.25 | 0.15 | 0.0952 |
| <i>rrnL</i> | MSC12 | 3.03 | 0.68 | 0.0207* |
| <i>rrnL</i> | MSC16 | 2.25 | 0.53 | 0.0400* |

* Significant difference between an MSC mutant for a given mitochondrial or nuclear gene compared to wild-type B at $\alpha = 0.05$, Student's t-test.

ⁿ Nuclear-encoded gene with no function in the mitochondria.

^{nm} Nuclear-encoded mitochondrially targeted gene.