

**Table S1. CREB-target genes dysregulated in the *mdx* mouse model**

| Gene Name  | Gene Symbol | Accession# | dys-regulation in <i>mdx</i> muscle | cAMP responsive  | CREB target gene references |
|--|-------------|------------|-------------------------------------|------------------|-----------------------------|
| <b>Metabolism</b>  |             |            |                                     |                  |                             |
| S-adenosylmethionine decarboxylase 1   | Amd1        | D12780     | down <sup>a,b</sup>                 | yes <sup>e</sup> | e                           |
| hexokinase-2   | Hk2         | Y11666     | down <sup>a</sup>                   | yes <sup>f</sup> | e, f                        |
| carnitine palmitoyltransferase 1, liver                                      | Cpt1a       | AF017175   | up <sup>a</sup>                     | yes <sup>f</sup> | e, f                        |
| ras-related associated with diabetes   | Rrad        | AF084466   | up <sup>a,c</sup>                   | yes <sup>f</sup> | f                           |
| syndecan binding protein   | Sdcbp       | AF077527   | up <sup>a</sup>                     | yes <sup>f</sup> | f                           |
| <b>Signaling</b>   |             |            |                                     |                  |                             |
| heat shock 70kD protein 5 (glucose-regulated protein, 78kD)                  | Hspa5       | NM_022310  | up <sup>a</sup>                     | yes <sup>f</sup> | f                           |
| A disintegrin and metalloproteinase domain 9 (meltrin gamma)                 | Adam9       | NM_007404  | down <sup>d</sup>                   | yes <sup>f</sup> | f                           |
| RalBP1 associated Eps domain containing protein                              | Reps1       | NM_009048  | down <sup>d</sup>                   | yes <sup>f</sup> | f                           |
| <b>Cell Cycle Control/Cell Survival/Apoptosis</b>                            |             |            |                                     |                  |                             |
| cyclin D1  | Ccnd1       | AI849928   | up <sup>c,g</sup>                   | yes <sup>e</sup> | e                           |
| regulator of G-protein signaling 2   | Rgs2        | U67187     | up <sup>c,a</sup>                   | yes <sup>f</sup> | f                           |
| proliferating cell nuclear antigen   | Pcna        | X57800     | up <sup>a</sup>                     | yes <sup>e</sup> | e                           |
| zinc finger protein regulator of apoptosis and cell cycle arrest             | Zac1        | X95504     | up <sup>a</sup>                     | yes <sup>f</sup> | f                           |
| transducer of ErbB-2.1   | Tob1        | NM_009427  | up <sup>d</sup>                     | yes <sup>f</sup> | f                           |
| <b>Transcription/Transcription Regulation</b>                                |             |            |                                     |                  |                             |
| inhibitor of DNA binding 2   | Idb2        | AF077861   | up <sup>a,d</sup>                   | yes <sup>f</sup> | f                           |
| CCAAT/enhancer binding protein (C/EBP), delta                                | Cebpd       | NM_007679  | up <sup>a,c,d</sup>                 | yes <sup>f</sup> | f                           |
| CCAAT/enhancer binding protein (C/EBP), beta                                 | Cebpb       | NM_009883  | down <sup>d,g</sup>                 | yes <sup>f</sup> | f                           |
| activating transcription factor 3  | Atf3        | NM_007498  | up <sup>d,a</sup>                   | yes <sup>f</sup> | f                           |
| <b>Proteolysis</b>   |             |            |                                     |                  |                             |
| ubiquitin-conjugating enzyme E2B   | Ube2b       |            | down <sup>a</sup>                   | yes <sup>f</sup> | f                           |
| ATPase, H <sup>+</sup> transporting, lysosomal 70kD, V1 subunit A, isoform 1 | Atp6v1a1    | U13837     | up <sup>a</sup>                     | yes <sup>f</sup> | f                           |
| <b>Other</b>   |             |            |                                     |                  |                             |
| UDP-glucose ceramide glucosyltransferase                                     | Ugcg        | AI853172   | up <sup>a</sup>                     | yes <sup>f</sup> | f                           |
| tenascin C   | Tnc         | AV230686   | up <sup>a,b</sup>                   | yes <sup>f</sup> | f                           |
| hairy/enhancer-of-split related with YRPW motif 1                            | Hey1        | NM_010423  | down <sup>d</sup>                   | yes <sup>f</sup> | f                           |

**Supplemental Table S1.** CREB-target genes dysregulated in the *mdx* mouse model. Dysregulated genes in *mdx* hindlimb muscle<sup>a,b,c,d</sup> were cross-referenced to known CREB-target genes<sup>e</sup> and/or CREB-target genes shown to be responsive to cAMP<sup>f</sup>, and therefore downstream of the cAMP-PKA mediated activation of CREB. Genes are listed by functional group. <sup>a</sup>,(ref.40); <sup>b</sup>, (ref.39); <sup>c</sup>,(ref.38); <sup>d</sup>, (ref.41); <sup>e</sup>,(ref.33); <sup>f</sup>,(ref.42); <sup>g</sup>,(ref.35)\*dysregulated in DMD.

## References for Supplemental Table S1

38. Boer JM, de Meijer EJ, Mank EM, van Ommen GB, den Dunnen JT. *Neuromuscul Disord.* 2002;12 Suppl 1:S118-24.
39. Tseng BS, Zhao P, Pattison JS, Gordon SE, Granchelli JA, Madsen RW, Folk LC, Hoffman EP, Booth FW. *J Appl Physiol.* 2002;93(2):537-45.
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41. Turk R, Sterrenburg E, de Meijer EJ, van Ommen GJ, den Dunnen JT, 't Hoen PA. *BMC Genomics.* 2005;6:98.
42. Zhang X, Odom DT, Koo SH, Conkright MD, Canettieri G, Best J, Chen H, Jenner R, Herbolsheimer E, Jacobsen E, Kadam S, Ecker JR, Emerson B, Hogenesch JB, Unterman T, Young RA, Montminy M. *Proc Natl Acad Sci U S A.* 2005;102(12):4459-64.