**SUPPLEMENTARY DATA**

*Supplementary tables*

Table S1: Antibodies used

| Antibody | **Type** | **Source** | **WB dilution** | IHC dilution |
| --- | --- | --- | --- | --- |
|  Primary antibodies |  |  |  |  |
| anti-acetylcholine receptor, alpha-subunit (MAB398) | Mouse monoclonal, IgG1 | Chemicon, Millipore, Germany | n.d. | 1:150 |
| anti-desmin (M 0760) | Mouse monoclonal, clone D33, IgG1 | DAKO, Hamburg, Germany | n.d. | 1:300 |
| anti-dihydropyridin receptor alpha1-subunit (D218) | Mouse monoclonal, clone 1A, IgG1 | Sigma-Aldrich | n.d. | 1:100 |
| anti-GAPDH (ab8245) | Mouse monoclonal, clone 6C5, IgG1 | Abcam, Cambridge, UK | 1:200,000 | n.d. |
| anti-Itm2A (i141) | Rabbit polyclonal | Eurogentec | 1:500\* | 1:50 |
| anti-Itm2a (sc-50022) | Goat polyclonal | Santa Cruz Biotechnology, Heidelberg, Germany | 1:1,000 | n.d. |
| anti-laminin (L8271) | Mouse monoclonal, clone LAM-89, IgG1 | Sigma-Aldrich | n.d. | 1:1,000 |
| anti-myosin, slow (M8421) | Mouse monoclonal, clone NOQ7.5.4D, IgG1 | Sigma-Aldrich | n.d. | 1:200 |
| anti-phosphorylated neurofilament H and M (SMI 31) | Mouse monoclonal IgG1 | Sternberger Monoclonals, Lutherville, MD, USA | n.d. | 1:1,000 |
| anti-PITPNC1 (GTX115801) | Rabbit polyclonal | GeneTex, Irvine, CA, USA | 1:2,000 | 1:100 |
| Secondary antibodies |  |  |  |  |
| anti-Goat IgG (H+L)(705-035-003) | Donkey polyclonal, peroxidase-conjugated | Jackson ImmunoResearch | 1:35,000 | n.d. |
| anti-Mouse IgG (H+L) | Goat polyclonal, Alexa Fluor 555-conjugated | Invitrogen | n.d. | 1:800 |
| anti-Mouse IgG (H+L) (115-506-003) | Goat polyclonal F(ab')2 Fragments, DyLight®549-conjugated | Jackson ImmunoResearch | n.d. | 1:800 |
| anti-Mouse IgG (H+L) (115-035-003) | Goat polyclonal, peroxidase-conjugated | Jackson ImmunoResearch | 1:170,000 | n.d. |
| anti-Rabbit IgG (H+L) (111-035-003) | Goat polyclonal, peroxidase-conjugated | Jackson ImmunoResearch | 1:170,000 | n.d. |
| anti-Rabbit IgG (H+L) | Goat polyclonal, Alexa Fluor 488-conjugated | Invitrogen | n.d. | 1:400 |
| used for blocking only |  |  |  |  |
| anti-Mouse Fab fragment IgG (H+L) | Goat polyclonal unconjugated | Jackson ImmunoResearch | n.d. | 1:10 |

WB – western blot; IHC – immunohistochemistry

\* not used for quantification western blots

Table S2: Primers used

| Primer | **Sequence** | **Used for** |
| --- | --- | --- |
|  Sry F | TGGGACTGGTGACAATTGTC | sex determination [10] |
| Sry R | GAGTACAGGTGTGCAGCTCT | sex determination [10] |
| IL3 F | GGGACTCCAAGCTTCAATCA | control [10] |
| IL3 R | TGGAGGAGGAAGAAAAGCAA | control [10] |
| YRp17 F | GCTACTTGGAGCCACTATCGACTACGCGA | transgene detection |
| YRp17 R | AGTGATAAATTAAAGTCTTGCGCCTTAAACC | transgene detection |
| Itm2a F | TGTGGTTCGTGAAGACCTGG | qPCR |
| Itm2a R | TTTGTCAATGGCACGCTTGT | qPCR |
| Eif2s2 F | AGCCAAACTGCTTGGGCA | qPCR |
| Eif2s2 R | CTACTCGGACGACCTGTGGAG | qPCR |
| Pitpnc1 F | TGCGATCTTGGTGTGGCAT | qPCR |
| Pitpnc1 R | AAAAGGAAACCCTCCTTGGG | qPCR |
| Gapdh F | TGACCACAGTCCATGCCATC | qPCR |
| Gapdh R | GACGGACACATTGGGGGTAG | qPCR |

*Supplementary figures*

Fig. S1

eIF2S2 Western blots of (a) four muscles from the different groups without and (b) two 10dC22 muscles with phosphatase pretreatment. The asterisk marks extracts of the same 10dC22 muscle showing a strong, approximately 55 kDa band in addition to the main 50 kDa band that cannot be detected after phosphatase pretreatment indicating phosphorylation of eIF2S2 in this muscle. The majority of other 10dC22 muscle did not show such a band and did not change their band patter with eIF2S2, as seen in (b) the 10dC22 to the left.

