

A

Enriched whisker Day +3 CC GO terms

GO Term	GeneRatio
intercalated disc	8/159
cell-cell contact zone	8/159
myofibril	11/159
I band	9/159
contractile fiber	11/159
sarcomere	10/159
contractile fiber part	10/159
transmembrane transporter complex	12/159
transporter complex	12/159
acetylcholine-gated channel complex	4/159
ion channel complex	11/159
cell-cell junction	13/159
filopodium membrane	3/159
Z disc	6/159
filopodium	5/159
actin-based cell projection	7/159
CuI3-RING ubiquitin ligase complex	4/159
receptor complex	9/159
actomyosin	4/159
ubiquitin ligase complex	8/159
voltage-gated sodium channel complex	2/159
leading edge membrane	5/159
invadopodium	2/159
sarcolemma	5/159

Enriched soleus Day +3 CC GO terms

GO Term	GeneRatio
cell-cell junction	31/490
transmembrane transporter complex	22/490
transporter complex	22/490
caveola	11/490
ion channel complex	20/490
voltage-gated potassium channel complex	10/490
potassium channel complex	10/490
plasma membrane raft	11/490
intercalated disc	8/490
membrane raft	20/490
membrane microdomain	20/490
sarcolemma	12/490
membrane region	20/490
cell-cell contact zone	8/490
T-tubule	7/490
contractile fiber	14/490
sarcoplasmic reticulum	7/490
receptor complex	19/490
cation channel complex	13/490
sarcoplasm	7/490
sarcoplasmic reticulum membrane	4/490
contractile fiber part	12/490
voltage-gated sodium channel complex	3/490

B

Top 50 whisker pad

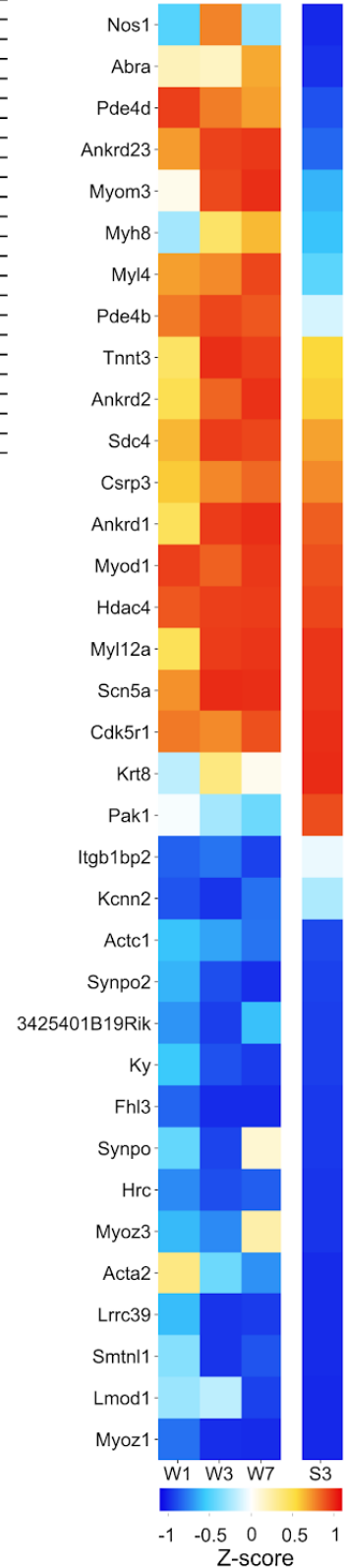
Gene name	transcript_id
Myog	ENSMUST00000027730.5
Scn5a	ENSMUST000000065196.12
Gdf5	ENSMUST000000040162.2
Smad3	ENSMUST000000034973.9
Hdac4	ENSMUST000000097644.8
Mlf1	ENSMUST000000061322.9
Fhl3	ENSMUST000000038684.5
Snai3	ENSMUST00000006762.6
Kbtbd13	ENSMUST000000068307.3
Chrd	ENSMUST000000073252.8
Carns1	ENSMUST000000167055.1
Carns1	ENSMUST000000181869.2
Tbc1d4	ENSMUST000000161304.1
Kcnj2	ENSMUST000000042970.2
Adamts14	ENSMUST000000015994.3
Pvr	ENSMUST000000043517.7
Eda2r	ENSMUST000000037353.9
Alpk2	ENSMUST000000035548.14
Myod1	ENSMUST000000072514.2
Plekhh1	ENSMUST000000219946.1
Phkg1	ENSMUST000000200832.1
Eepd1	ENSMUST000000040677.5
Hdac9	ENSMUST000000110819.3
Kcna7	ENSMUST000000107742.2
Gadd45a	ENSMUST000000043098.8
Runx1	ENSMUST000000023673.13
Tiger	ENSMUST000000039913.8
Fn3k	ENSMUST000000026175.8
Gprc5c	ENSMUST000000053361.11
Ufsp1	ENSMUST000000052825.6
Mtch1	ENSMUST000000095427.10
Smco1	ENSMUST000000093183.3
Myf6	ENSMUST000000044210.4
Ankrd23	ENSMUST000000193083.5
Atoh8	ENSMUST000000206425.1
Eef1akmt4	ENSMUST000000115522.8
Klhl33	ENSMUST000000227271.1
Asb18	ENSMUST000000086882.7
Sec14i5	ENSMUST000000230616.1
Kcnn3	ENSMUST000000124584.3
Chna1	ENSMUST000000028515.3
Mtch1	ENSMUST000000118366.7
Uqcc1	ENSMUST000000109636.10
Ppp1r27	ENSMUST000000026121.2
Lrrc52	ENSMUST000000036643.5
Tubb6	ENSMUST000000001513.6
Gadd45a	ENSMUST000000126194.1
Pitpnc1	ENSMUST000000040380.12
Peg3	ENSMUST000000051209.10
Stum	ENSMUST000000136521.1

Top 50 soleus

Gene name	transcript_id
Ngfr	ENSMUST00000000122.6
Fgf6	ENSMUST00000000187.6
Ccnd2	ENSMUST00000000188.11
Bcl6b	ENSMUST00000000326.11
Alox12	ENSMUST00000000329.8
Kcnn3	ENSMUST00000000811.7
Hip1r	ENSMUST00000000939.14
Col6a1	ENSMUST00000001147.4
Col6a2	ENSMUST00000001181.12
Tubb6	ENSMUST00000001513.6
Col1a1	ENSMUST00000001547.7
Aif1l	ENSMUST00000001920.12
Abcd1	ENSMUST00000002084.13
Ppm1j	ENSMUST00000002298.6
Zim1	ENSMUST00000002336.15
Lamb1	ENSMUST00000002979.14
Abcb4	ENSMUST00000003717.12
Gstm7	ENSMUST00000004137.10
Mtffp1	ENSMUST00000004868.5
Klf5	ENSMUST00000005279.7
Nid1	ENSMUST00000005532.8
Hmxo1	ENSMUST00000005548.7
Slc30a4	ENSMUST00000005952.10
Tead4	ENSMUST00000006311.12
Vwa7	ENSMUST00000007245.7
Tgfb1r1	ENSMUST00000007757.14
Abhd8	ENSMUST00000008094.9
Myrk	ENSMUST00000009358.8
Dil1	ENSMUST00000014917.7
Tppp3	ENSMUST00000014990.12
Aldh1a3	ENSMUST00000015278.14
Lpl	ENSMUST00000015712.14
Adamts14	ENSMUST00000015994.3
Cd274	ENSMUST00000016640.7
Vtn	ENSMUST00000017488.4
Traf4	ENSMUST00000017530.3
Myh8	ENSMUST00000019625.11
Pde7b	ENSMUST00000020165.13
Igfbp3	ENSMUST00000020702.10
Adcy1	ENSMUST00000020706.4
Nrcam	ENSMUST00000020939.15
Id2	ENSMUST00000020974.6
Rrm2	ENSMUST00000020980.11
Klf11	ENSMUST00000020982.6
Ccl7	ENSMUST00000021011.2
Slc9a3r1	ENSMUST00000021077.3
Tac4	ENSMUST00000021242.4
Serpina3n	ENSMUST00000021506.5
Galnt16	ENSMUST00000021558.7
Fos	ENSMUST00000021674.6

C

Contractile fiber



Supplementary Figure 3. Additional transcriptome data for denervated whisker pad and soleus muscle.

(A) Full lists of enriched GO terms for both whisker pad and soleus 3 d calculated from a ranked list of differentially expressed ± 2 -FC transcript gene IDs. All GO terms listed were significantly enriched by hypergeometric test at $q < 0.05$.

(B) List of top 50 significant differentially expressed transcripts for both whisker pad and soleus.

(C) Full heatmap of differentially expressed genes included in the Contractile fiber GO term. Data shown as average z-score. Columns labeled W1, W3 and W7 indicate whisker pad data from 1, 3, and 7 d post-denervation, respectively. Rightmost columns labeled S3 indicate soleus data from 3 d post denervation.