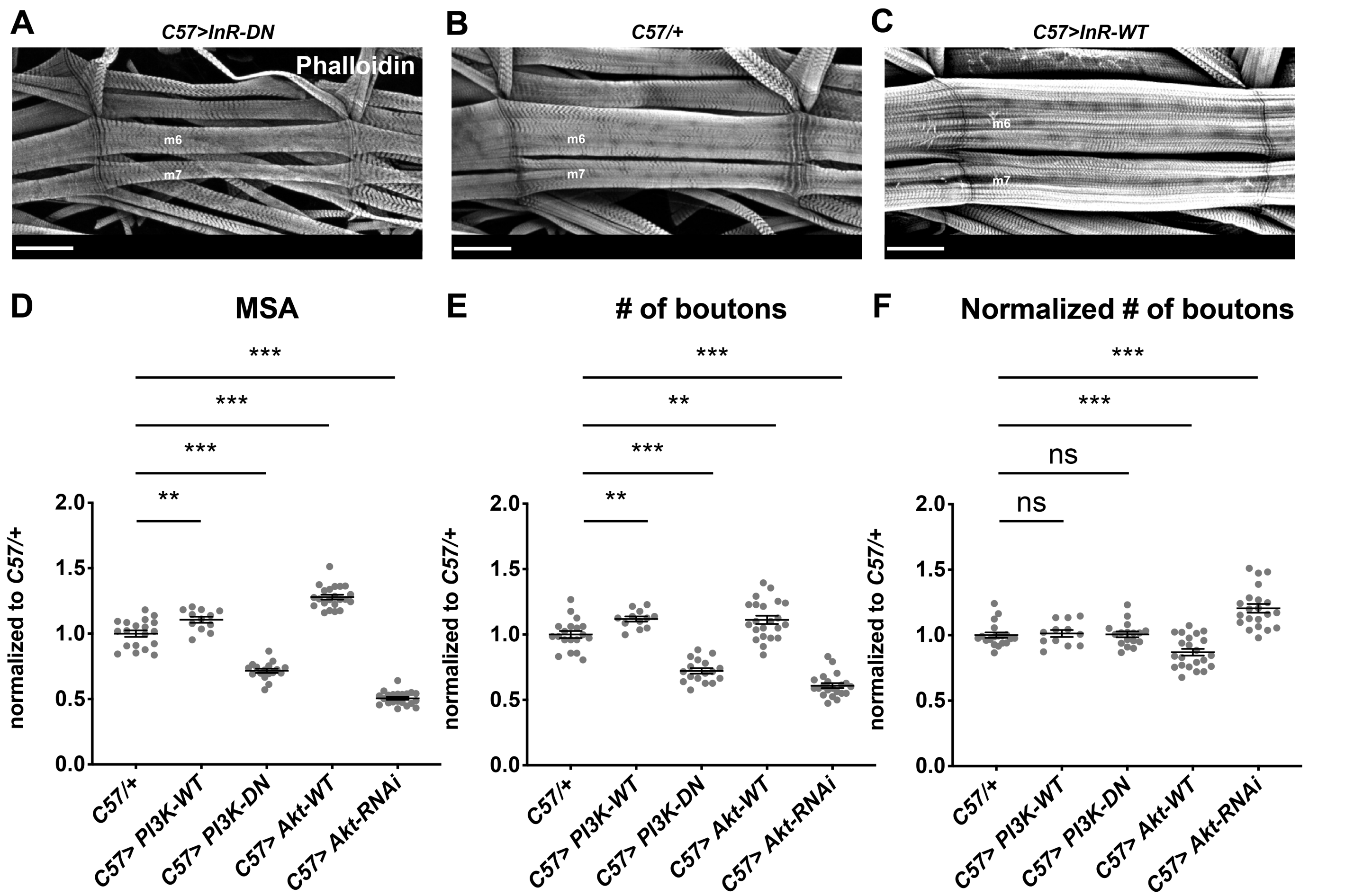
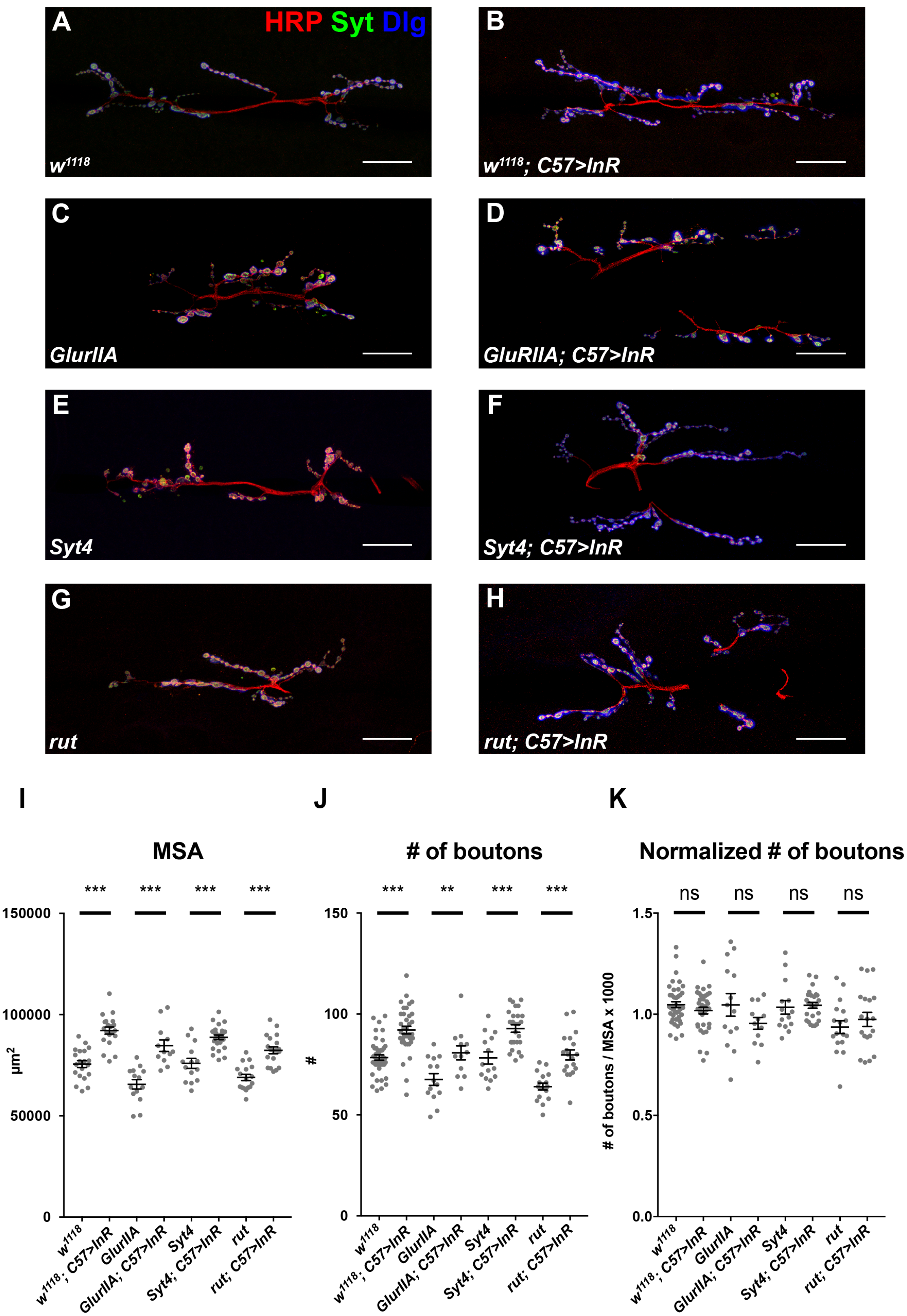


Figure S1, related to Figure 1. InR signaling autonomously alters muscle growth and non-autonomously regulates synapse growth through PI3K and Akt. (A-C) Confocal images of muscle 6 (m6) and muscle 7 (m7) in segment A3 labeled with phalloidin in *C57-GAL4>UAS-InR-DN* (A), *C57-GAL4/+* (B), and *C57-GAL4>UAS-InR-WT* (C). Muscle size increases in response to activation of InR signaling and decreases in response to inhibition of InR signaling. Scale bars, 200 μm. (D-F) Quantification of the MSA of muscle 6/7 (D), number of boutons (E), and number of boutons normalized to MSA (F) of the NMJ on muscle 6/7 in *C57-GAL4/+, C57-GAL4>UAS-PI3K-WT, C57-GAL4>UAS-PI3K-DN, C57-GAL4>UAS-Akt-WT,* and *C57-GAL4>UAS-Akt-RNAi*. n=19 (*C57-GAL4/+*), n=12 (*C57>PI3K-WT*), n=17 (*C57>PI3K-DN*), n=22 (*C57> Akt-WT*), and n=21 (*C57>Akt-RNAi*). Error bars show mean ± SEM. *p<0.05, **p<0.01, ***p<0.0001; ns, not significant by unpaired Student's t-test.



A
HRP Syt Dlg
w1118
B
w1118; C57>InR
C
GlurIIA
D
GluRIIA; C57>InR
E
Syt4
F
Syt4; C57>InR
G
rut
H
rut; C57>InR
I
MSA
*** *** *** ***
μm2
150000
100000
50000
0
w1118
w1118; C57>InR
GlurIIA
GlurIIA; C57>InR
Syt4
Syt4; C57>InR
rut
rut; C57>InR
J
# of boutons
*** ** *** ***
#
150
100
50
0
K
Normalized # of boutons
ns ns ns ns
# of boutons / MSA x 1000
1.5
1.0
0.5
0.0

Figure S2, related to Figure 3. Scaling growth does not require genes needed for activity-dependent synaptic plasticity. (A-H) Confocal images of the NMJ on muscle 6/7 in w^{1118} (A), w^{1118}*; C57-GAL4>UAS-InR-WT* (B), *GluRIIA* (C), *GluRIIA; C57-GAL4>UAS-InR-WT* (D), *Syt4* (E), *Syt4; C57-GAL4>UAS-InR-WT* (F), *rut* (G), and *rut; C57-GAL4>UAS-InR-WT* (H) labeled with anti-HRP (red), anti-Syt (green), and anti-Dlg (blue). Scale bars, 30 μm. (I-K) Quantification of the MSA of muscle 6/7 (I), number of boutons (J), and normalized number of boutons (K) of the NMJ on muscle 6/7. Scaling growth functions properly in these mutants, in which neuronal activity-dependent structural plasticity is defective. n=20 (w^{1118}; w^{1118}*; C57>InR-WT*), n=14 (*GluRIIA; Syt4*), n=12 (*GluRIIA; C57>InR-WT*), n=26 (S*yt4; C57> InR-WT*), n=17 *(rut)*, or n=19 (*rut; C57>InR-WT*). Error bars represent mean ± SEM. **p<0.01, ***p<0.0001; ns, not significant by unpaired Student’s t-test.

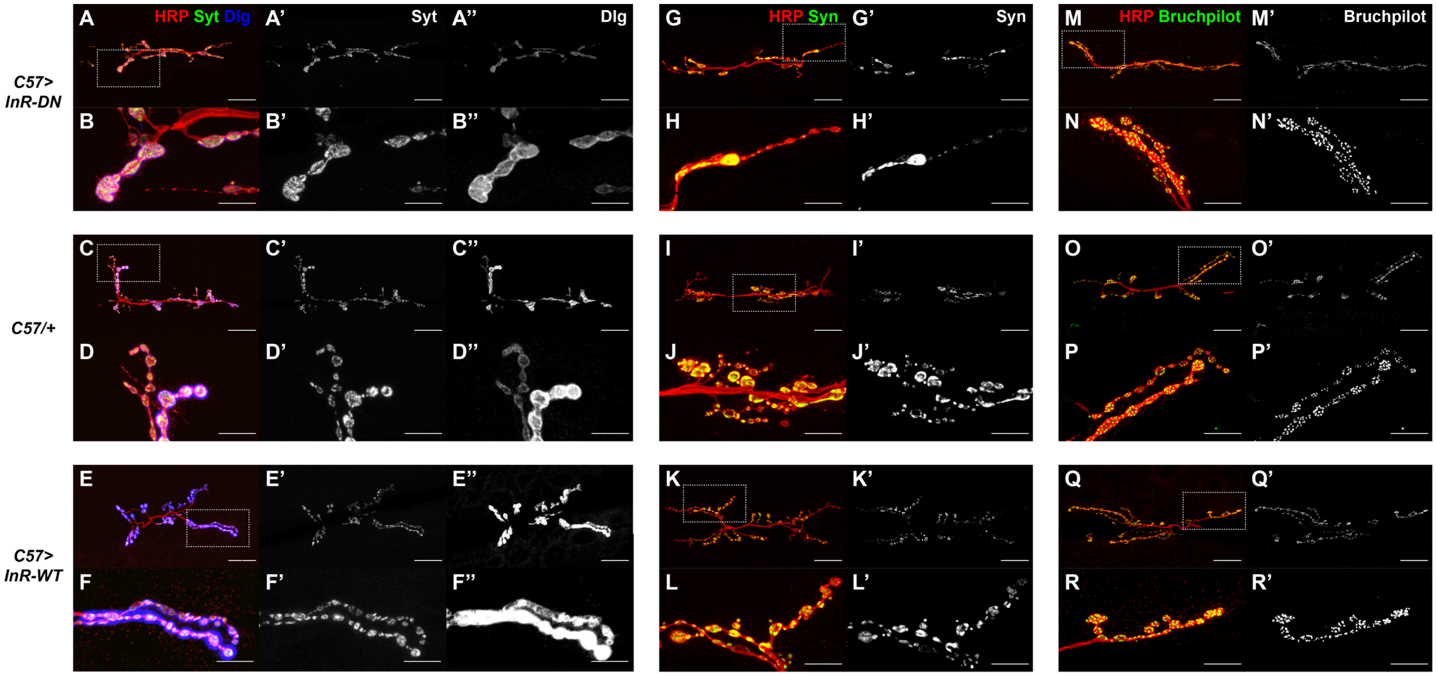


Figure S3, related to Figure 4. Presynaptic differentiation is not affected by muscle InR signaling. (A-R) Confocal images of the NMJ on muscle 6/7 in *C57-GAL4>UAS-InR-DN* (A, B, G, H, M, N), *C57-GAL4/+* (C, D, I, J, O, P) and *C57-GAL4>UAS-InR-WT* (E, F, K, L, Q, R). The boxes indicated in (A, C, E, G, I, K, M, O, Q) are enlarged in (B, D, F, H, J, L, N, P, R). The NMJ is labeled with anti-Syt (A’-F’, green in A-F), anti-Dlg (A’’-F’’, blue in A-F), anti-Syn (G’-L’, green in G-L), anti-Brp (M’-R’, green in M-R), and anti-HRP (red in A-R). Scale bars, 30 μm in (A, C, E, G, I, K, M, O, Q), 10 μm in (B, D, F, H, J, L, N, P, R). InR overexpression increases the amount of postsynaptic Dlg but not presynaptic Syt, Syn, or Brp.

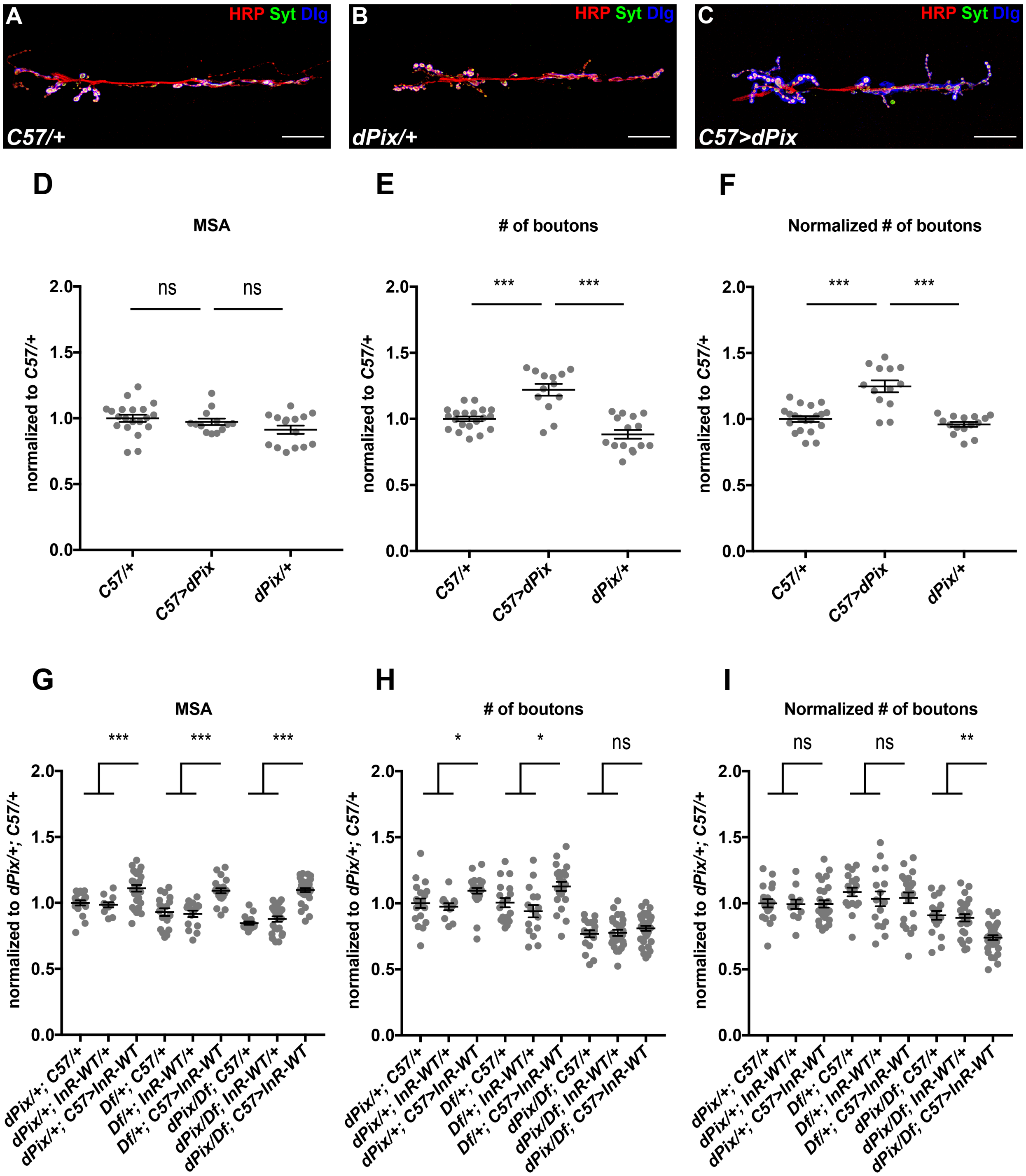

A
HRP Syt Dlg
C57/+
B
HRP Syt Dlg
dPix/+
C
HRP Syt Dlg
C57>dPix
D
MSA
ns
ns
normalized to C57/+
C57/+
C57>dPix
dPix/+
E
# of boutons
***
***
normalized to C57/+
C57/+
C57>dPix
dPix/+
F
Normalized # of boutons
***
***
normalized to C57/+
C57/+
C57>dPix
dPix/+
G
MSA
***
***
***
normalized to dPix/+; C57/+
dPix/+; C57/+
dPix/+; InR-WT/+
dPix/+; C57>InR-WT
Df/+; C57/+
Df/+; InR-WT/+
Df/+; C57>InR-WT
dPix/Df; C57/+
dPix/Df; InR-WT/+
dPix/Df; C57>InR-WT
H
# of boutons
*
*
ns
normalized to dPix/+; C57/+
I
Normalized # of boutons
ns
ns
**
normalized to dPix/+; C57/+

Figure S4, related to Figure 5. *dPix* is necessary for scaling growth of the NMJ. (A-C) Confocal images of the NMJ on muscle 6/7 in *C57-GAL4/+* (A), *UAS-dPix/+* (B) and *C57-GAL4>UAS-dPix* (C). The NMJ is labeled with anti-Syt (green), anti-HRP (red), and anti-Dlg (blue). Scale bars, 30 μm. (D-F) Quantification of the MSA of muscle 6/7 (D), number of boutons (E), and number of boutons normalized to MSA (F) of the NMJ on muscle 6/7. n=20 (*C57/+*), n=15 (*UAS-dPix/+*) and n=13 (*C57>dPix*). Overexpression of *dPix* in the muscle increases NMJ size but not muscle size. Error bars represent mean ± SEM. *p<0.05, **p<0.01, ***p<0.0001; ns, not significant by unpaired Student's t-test. (G-I) Quantification of the MSA of muscle 6/7 (G), number of boutons (H), and normalized number of boutons (I) of the NMJ on muscle 6/7 in *dPix/+; C57-GAL4* (n=19), *dPix/+; UAS-InR-WT/+* (n=12), *dPix/+; C57-GAL4>UAS-InR-WT* (n=27), *Df(2L)Exel6046/+; C57-GAL4/+* (n=18), *Df(2L)Exel6046/+; UAS-InR-WT* (n=16), *Df(2L)Exel6046/+; C57-GAL4>UAS-InR-WT* (n=22), *dPix/Df(2L)Exel6046; C57-GAL4/+* (n=18), *dPix/Df(2L)Exel6046; UAS-InR-WT/+* (n=25), or *dPix/Df(2L)Exel6046; C57-GAL4>UAS-InR-WT* (n=28).The *dPix* mutation prevents bouton number from increasing in response to InR expression. Error bars represent mean ± SEM. *p<0.05, **p<0.01, ***p<0.0001; ns, not significant by one-way Anova test.

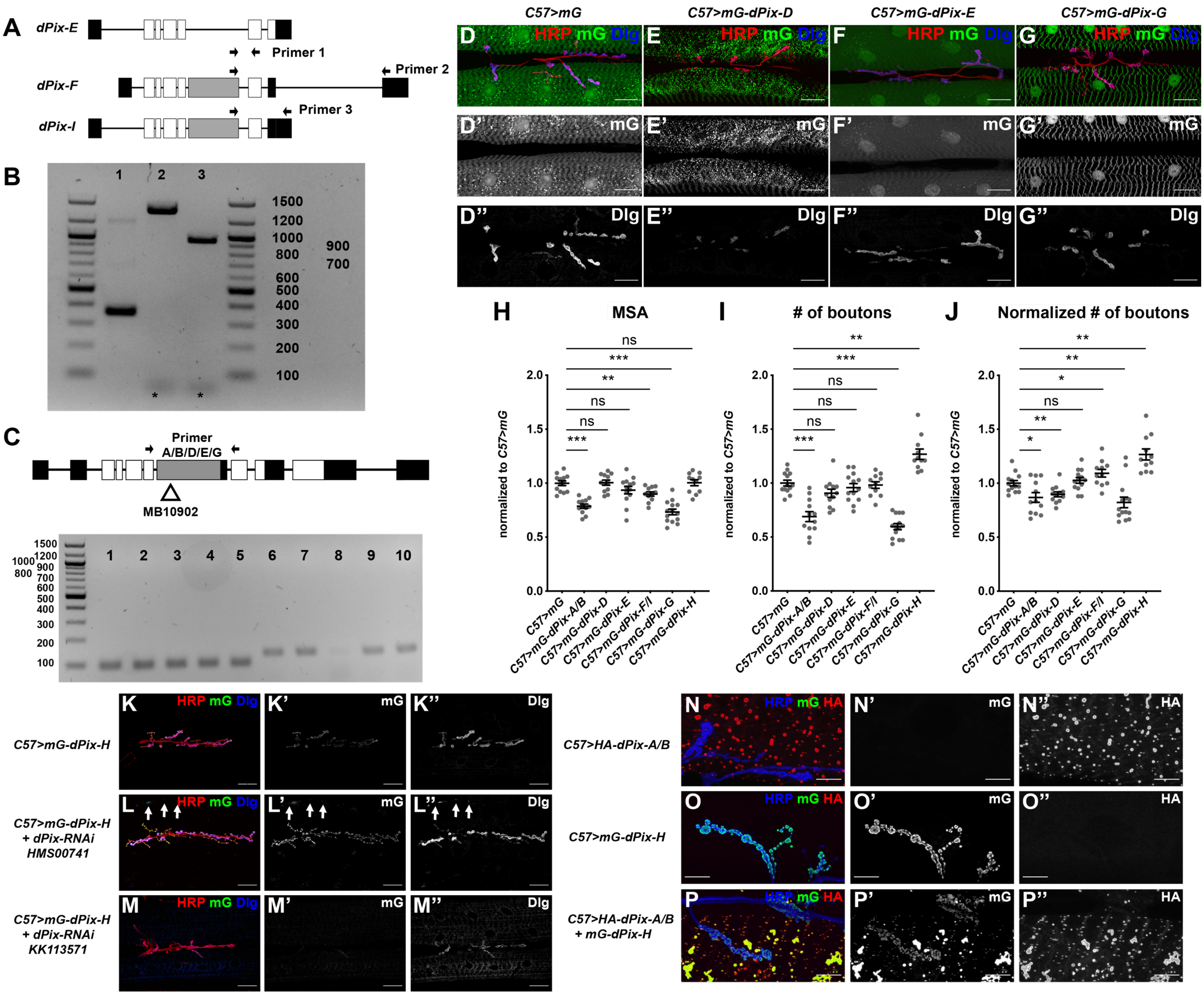


Figure S5, related to Figure 6. Functional interaction of different *dPix* isoforms. (A) Cartoon showing the transcript structures of *dPix* isoforms *-E*, *-F*, and newly annotated *-I*. Coding regions are shown in white, non-coding regions in black, and the specific exon shared by isoforms *F*, *H*, and *I* in grey. Arrows indicate the positions of the three pairs of primers used in the RT-PCR in (B). *dPix-I* shares the same coding sequence as *F*. (B) DNA agarose gel showing the RT-PCR amplification products from primer pairs 1-3 from RNA isolated from w^{1118} larval fillets. The predicted PCR amplicon sizes for primer pairs 1, 2, and 3 are 359 bp, 1356 bp, and

954 bp, respectively. The PCR amplicon in lane 3 confirms the presence of *dPix-I*, which was not previously annotated. (C) DNA agarose gel showing the RT-PCR amplification products from primer pairs *eIF4e* (1-5) and *dPix-A/B/D/E/G* (6-10, shown above) from RNA isolated from w^{1118} (1, 6), $dPix^{p1036}$/+ (2, 7), $dPix^{p1036}$ (3, 8), $dPix^{MB10902}$/+ (4, 9) and $dPix^{MB10902}$ (5, 10) larval fillets. *dPix* isoforms *A*, *B*, *D*, *E* and *G* are decreased in the $dPix^{p1036}$ mutant but not in the $dPix^{MB10902}$ mutant. (D-G) Confocal images of the NMJ on muscle 6/7 in in *C57-GAL4>UAS-mG* (D), *C57-GAL4>UAS-mG-dPix-D* (E), *C57-GAL4>UAS-mG-dPix-E* (F), and *C57-GAL4>UAS-mG-dPix-G* (G) labeled with anti-HRP (red), mG fluorescence (D'-G', green in D-G), and anti-Dlg (D''-G'', blue in D-G). Scale bars, 30 μm. Ectopic expression of isoform *D* or *G* reduces postsynaptic Dlg levels. (H-J) Quantification of the MSA of muscle 6/7 (H), number of boutons (I), and number of boutons normalized to MSA (J) of the NMJ on muscle 6/7 in (D-G) and Figure 6M-Q. n=13 (*C57>mG; C57>mG-dPix-E*), n=12 (*C57>mG-dPix-A/B; C57>mG-dPix-D*), n=11 (*C57>mG-dPix-F/I; C57>mG-dPix-H*), n=14 (*C57>mG-dPix-G*). Overexpression of *dPix* isoforms *A*, *B*, *D* and *G* decreases while *F*, *H* and *I* increase the size of the NMJ. Error bars show mean ± SEM. *p≤0.05, **p<0.01, ***p<0.0001; ns, not significant by unpaired Student's t-test. (K-M) Confocal images of the NMJ on muscle 6/7 in *C57-GAL4>UAS-mG-dPix-H* (K), *C57-GAL4>UAS-mG-dPix-H+UAS-dPix RNAi HMS00741* (L), and *C57-GAL4>UAS-mG-dPix-H+UAS-dPix RNAi KK113571* (M) labeled with anti-HRP (red in K-M), mG fluorescence (K'-M', green in K-M), and anti-Dlg (K''-M'', blue in K-M). Scale bars, 30 μm. Knocking down isoforms *A*, *B*, *D*, and *F* by RNAi (*HMS00741*) upregulates the abundance of mG-dPix-H and postsynaptic Dlg when co-expressed with mG-dPix-H. Arrows in (L) show extrasynaptic aggregates of dPix-H and Dlg. (N-P) Confocal images of the NMJ on muscle 6/7 in *C57-GAL4>UAS-HA-dPix-A/B* (N), *C57-GAL4>UAS-mG-dPix-H* (O), and *C57-GAL4>UAS-HA-dPix-A/B+UAS-mG-dPix-H* (P) labeled with anti-HRP (blue in N-P), mG fluorescence (N'-P', green in N-P) and anti-HA (N''-P'', red in N-P). Scale bars, 10 μm. Ectopic expression of dPix-A/B relocalizes dPix-H from the synapse to the muscle cytoplasm.

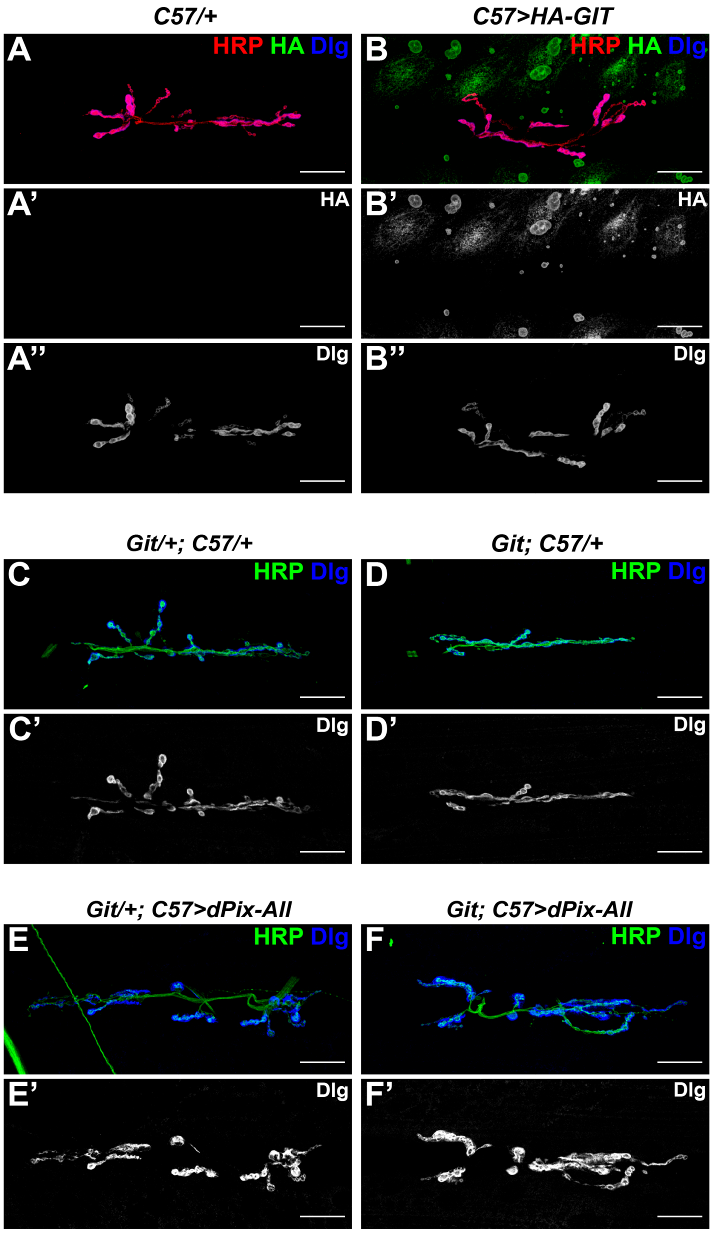
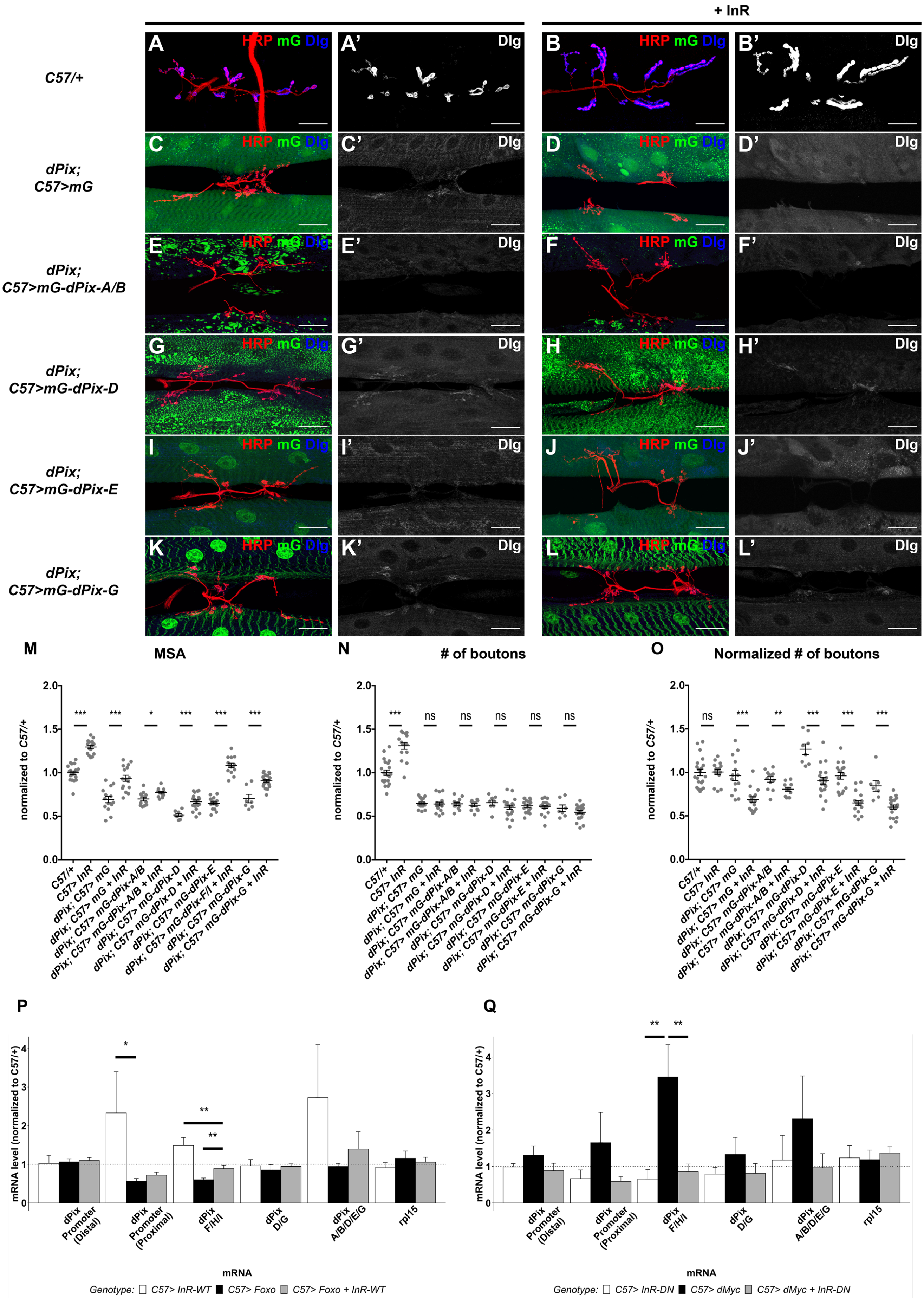


Figure S6, related to Figure 6. *Git* is not required for the postsynaptic function of *dPix*. (A-B) Confocal images of the NMJ on muscle 6/7 in in *C57-GAL4/+* (A) and *C57-GAL4>UAS-HA-Git* (B) labeled with anti-HRP (red), anti-HA (A', B', green in A, B) and anti-Dlg (A'', B'', blue in A, B). Git does not localize to the NMJ. (C-F) Confocal images of the NMJ on muscle 6/7 in in *Git/+; C57-GAL4/+* (C), *Git; C57-GAL4/+* (D), *Git/+; C57-GAL4>UAS-dPix-AII* (E), and *Git; C57-GAL4>UAS-dPix-AII* (F) labeled with anti-HRP (green) and anti-Dlg (C'-F', blue in C-F). Scale bars, 30 μm. Over-expression of dPix can still induce ectopic postsynaptic differentiation in a *Git* mutant.



+ InR
C57/+
dPix; C57>mG
dPix; C57>mG-dPix-A/B
dPix; C57>mG-dPix-D
dPix; C57>mG-dPix-E
dPix; C57>mG-dPix-G
HRP mG Dlg
Dlg
MSA
# of boutons
Normalized # of boutons
normalized to C57/+
C57/+
C57> InR
dPix; C57> mG
dPix; C57> mG + InR
dPix; C57> mG-dPix-A/B
dPix; C57> mG-dPix-A/B + InR
dPix; C57> mG-dPix-D
dPix; C57> mG-dPix-D + InR
dPix; C57> mG-dPix-E
dPix; C57> mG-dPix-F/I + InR
dPix; C57> mG-dPix-E + InR
dPix; C57> mG-dPix-G
dPix; C57> mG-dPix-G + InR
ns
mRNA level (normalized to C57/+)
dPix Promoter (Distal)
dPix Promoter (Proximal)
dPix F/H/I
dPix D/G
dPix A/B/D/E/G
rpl15
mRNA
Genotype: C57> InR-WT C57> Foxo C57> Foxo + InR-WT
Genotype: C57> InR-DN C57> dMyc C57> dMyc + InR-DN

Figure S7, related to Figure 7. Some dPix isoforms antagonize scaling growth of the NMJ. (A-L) Confocal images of muscle 6/7 in segment A3 in *C57-GAL4/+* (A), *C57-GAL4>UAS-InR-WT* (B), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG* (C), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG+UAS-InR-WT* (D), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-A/B* (E), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-A/B+UAS-InR-WT* (F), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-D* (G), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-D+UAS-InR-WT* (H), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-E* (I), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-E+UAS-InR-WT* (J), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-G* (K), *dPix/Df(2L)Exel6046; C57-GAL4>UAS-mG-dPix-G+UAS-InR-WT* (L) labeled with anti-HRP (red), mG fluorescence (green), and anti-Dlg (A'-L', blue in A-L). Scale bars, 30 μm. (M-O) Quantification of the MSA of muscle 6/7 (M), number of boutons (N), and number of boutons normalized to MSA (O) of the NMJ on muscle 6/7 in (A-L). n=21 (*C57/+*), n=15 (*C57>InR-WT*), n=14 (*dPix/Df; C57>mG*), n=16 (*dPix/Df; C57>mG+InR-WT; dPix/Df; C57>mG-dPix-E*), n=12 (*dPix/Df; C57>mG-dPix-A/B*), n=11 (*dPix/Df; C57>mG-dPix-A/B+InR-WT*)*,* n=8 (*dPix/Df; C57>mG-dPix-D*), n=19 (*dPix/Df; C57>mG-dPix-D+InR-WT; dPix/Df; C57> mG-dPix-E+InR-WT*), n=7 (*dPix/Df; C57>mG-dPix-G*), n=20 (*dPix/Df; C57>mG-dPix-G+InR-WT*). Error bars show mean ± SEM. *p≤0.05, **p<0.01, ***p<0.0001; ns, not significant by unpaired Student's t-test. Isoforms *A*, *B*, *D*, *E* and *G* cannot rescue the postsynaptic differentiation and scaling growth defects of the *dPix* mutant. (P-Q) qRT-PCR measurements of *dPix* transcript levels using RNA extracted from *C57-GAL4/+*, *C57-GAL4>UAS-InR-WT, C57-GAL4>UAS-Foxo,* and *C57-GAL4>UAS-Foxo*+UAS-*InR-WT* larval carcasses in (P) and C57-GAL4/+, *C57-GAL4>UAS-InR-DN, C57-GAL4>UAS-dMyc,* and *C57-GAL4>UAS-dMyc+UAS-InR-DN* larval carcasses in (Q). Transcript levels are normalized to *eIF4e* and compared to those of *C57-GAL4/+*. Overexpression of *Foxo* decreases the expression of *dPix* isoforms *F*, *H*, and *I* and the usage of its proximal promoter, and prevents the increase in expression of these isoforms induced by *InR-WT*. Overexpression of *dMyc* increases the expression of *dPix* isoforms *F*, *H*, and *I,* and co-expression of *InR-DN* prevents this increase. n=3 samples of each genotype. Error bars show mean ± SD. Significant differences are indicated. *p≤0.05, **p<0.01 by unpaired Student's t-test.

Supplementary Tables

Table S1, related to STAR Methods: Primers used to clone single *dPix* isoforms

Primers for cloning *dPix* isoforms	Sequence	Notes
dPix-H-cds-F	ctggaggcagtgcaggtggaATGGATCAGCCACTGGTGG	A forward primer that amplifies the full-length *dPix* isoform *H* sequence from cDNA and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-H-cds-R	caatgtatcttatcatgtctTTACAAAACAATCAAACGTAACACGTG	A reverse primer that amplifies the full-length *dPix* isoform *H* sequence from cDNA and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
mNeonGreen-F	tccacctgcactgcctc	A forward primer that amplifies the full-length mNeonGreen coding sequence with the poly-G/S linker at the 3' end and contains the homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
mNeonGreen-R	AGACATGATAAGATACATTGATGAGTTTG	A reverse primer that amplifies the full-length mNeonGreen coding sequence with the poly-G/S linker at the 3' end and contains the homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-FHI-F	aaaggaagcacaaaggctaaAGACATGATAAGATACATTGATGAGTTT	A forward primer that amplifies the *dPix* isoform *F/H/I*-specific coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-FHI-R	tggcttgatggcggcgacatCTGGCCGTCGATCC	A reverse primer that amplifies the *dPix* isoform *F/H/I*–specific coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-FI-F	ATGTCGCCGCCATCAA	A forward primer that amplifies the *dPix* isoform *F/I*–specific coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-FI-R	TTAGCCTTTGTGCTTCCTTTCC	A reverse primer that amplifies the *dPix* isoform *F/I*–specific coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-Common-F	tcagccagcagtcgtct	A forward primer that amplifies the common *dPix* isoform coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-Common-R	agcacatctgggatgggcttcgccacttaCCCGAGTGGATGGTGT	A reverse primer that amplifies the common *dPix* isoform coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
pPAC-vector-R	ATCCGGGgtctctgga	A reverse primer that primes to the SV40 sequence and allows for homologous recombination into the pPAC-PL vector by Gibson Assembly.
pPAC-vector-E-F	gaagcccatcccagatgtgcttcatatagAGACATGATAAGATACATTGATGAGTTT	A forward primer that primes to the 5' end of the *dPix* isoform *E*-specific coding sequence for insertion into the pPAC-PL vector by Gibson Assembly.
pPAC-vector-G-F	tgaagcagtggcgcaagatcaaccatgtttgaAGACATGATAAGATACATTGATGAGTTT	A forward primer that primes to the 5' end of the *dPix* isoform G-specific coding sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-ABD-F	ATGTCGCCGCCATCAA	A forward primer that amplifies the *dPix* isoform *A/B/D*–specific coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-ABD-R	TCAACACTTGGGGGTGTTG	A reverse primer that amplifies the *dPix* isoform *A/B/D*–specific coding sequence and contains a homologous recombination sequence for insertion into the pPAC-PL vector by Gibson Assembly.
dPix-UASt-mG-F	actctgaatagggaattgggATGGTGAGCAAGGGCG	A forward primer that amplifies the mNeonGreen tagged *dPix* isoforms–SV40 sequence on the pPAC-PL plasmid and contains a

		homologous recombination sequence for insertion into the pUAST-attB plasmid using Gibson Assembly.
dPix-UASt-attb-R	tctagaggtaccctcgagccGTCGACTGATCATAATCAGCCATA	A reverse primer that amplifies the mNeonGreen tagged *dPix* isoforms–SV40 sequence on the pPAC-PL plasmid and contains a homologous recombination sequence for insertion into the pUAST-attB plasmid using Gibson Assembly.
dPix-UASt-HA-F	tctgaatagggaattgggATGtatccgtatgatgttccggattatgcaGATCAGCCACTGGTG	A forward primer that amplifies the HA tagged *dPix* isoforms–SV40 sequence on the pPAC-PL plasmid and contains a homologous recombination sequence for insertion into the pUAST-attB plasmid using Gibson Assembly.

Table S2, related to STAR Methods: Primers used in qPCR analysis

Primers for QPCR analysis	Sequence	Notes
q-rpl15-f	TGTCCACAAGCATCGTGAAT	amplifying region in *rpl15* in qPCR experiment (Figure 7L)
q-rpl15-r	TCCACCAATTGTCTGGGAGT	amplifying region in *rpl15* in qPCR experiment (Figure 7L)
q-eif4e-f	CGAGGCTAAGGATGTCAAGC	amplifying region in *eif4e* in qPCR experiment (Figure 7L)
q-eif4e-r	CACAGCGTCCAGACATTCAT	amplifying region in *eif4e* in qPCR experiment (Figure 7L)
q-dPix-FHI-f	GTCACCAGCACAACCAACAC	amplifying region in *dPix* isoform *F/H/I* in qPCR experiment (Figure 7L)
q-dPix-FHI-r	AGCAATGCGGCCATTACATA	amplifying region in *dPix* isoform *F/H/I* in qPCR experiment (Figure 7L)
q-dPix-DG-r	CGTGGACGGAAATTTAAGGA	amplifying region in *dPix* isoform *D/G* in qPCR experiment (Figure 7L)
q-dPix-DG-f	AAAGCTTCCAATGCCACAAG	amplifying region in *dPix* isoform *D/G* in qPCR experiment (Figure 7L)
q-dPix-G-f	AAAGCTTCCAATGCCACAAG	amplifying region in *dPix* isoform *G* in qPCR experiment (Figure 7L)
q-dPix-G-r	ATTTCACCGCAGACACATCA	amplifying region in *dPix* isoform *G* in qPCR experiment (Figure 7L)
q-dPix-E-f	TTGGCCACTGATTTCGTTTT	amplifying region in *dPix* isoform *E* in qPCR experiment (Figure 7L)
q-dPix-E-r	GCAAAAACTTTGGATTCCTTTG	amplifying region in *dPix* isoform *E* in qPCR experiment (Figure 7L)
q-dPix-all-f	AGTTTGTCAGGGTCCGAATG	amplifying region in all *dPix* isoforms in qPCR experiment (Figure 7L)
q-dPix-all-r	ATGAGCGGCATTTAGGTGTC	amplifying region in all *dPix* isoforms in qPCR experiment (Figure 7L)
q-dPix-H-f	TGTCGAATGGTATCCGGTTT	amplifying region in *dPix* isoform *H* in qPCR experiment (Figure 7L)
q-dPix-H-r	GCCAAATGGTTGCTGGTAGA	amplifying region in *dPix* isoform *H* in qPCR experiment (Figure 7L)
mlc2-q-f	GATCGGAATCGAAATGAGGA	amplifying region in *mlc* in qPCR experiment (Figure 7L)
mlc2-q-r	GCAGGGCTAACGAATACAGC	amplifying region in *mlc* in qPCR experiment (Figure 7L)

q-ej-eif4e-f	CTCTTGCCGCGA ATGTTTAT	amplifying exon-exon junction in *eif4e* in qPCR experiment (Figure S7P, Q)
q-ej-eif4e-r	TGGATAACCTAT GGCTCGATG	amplifying exon-exon junction in *eif4e* in qPCR experiment (Figure S7P, Q)
q-ej-rpl15-f	AGGATGCACTTA TGGCAAGC	amplifying exon-exon junction in *rpl15* in qPCR experiment (Figure S7P, Q)
q-ej-rpl15-r	GCGCAATCCAAT ACGAGTTC	amplifying exon-exon junction in *rpl15* in qPCR experiment (Figure S7P, Q)
q-ej-dPix-DG-f	GTGCCGCCTATC AGAACAAT	amplifying exon-exon junction in *dPix* isoform *D/G* in qPCR experiment (Figure S7P, Q)
q-ej-dPix-DG-r	TCGAGAAGGTTT TGCTCGTT	amplifying exon-exon junction in *dPix* isoform *D/G* in qPCR experiment (Figure S7P, Q)
q-ej-dPix-FHI-f	GACACCTAAATG CCGCTCAT	amplifying exon-exon junction in *dPix* isoform *F/H/I* in qPCR experiment (Figure S7P, Q)
q-ej-dPix-FHI-r	GGGCTGGAGTA ATAGGCACA	amplifying exon-exon junction in *dPix* isoform *F/H/I* in qPCR experiment (Figure S7P, Q)
q-ej-dPix-ABDEG-f	GAGCTGCTCAAT GCCAATAA	amplifying exon-exon junction in *dPix* isoform *A/B/D/E/G* in qPCR experiment (Figure S7P, Q)
q-ej-dPix-ABDEG-r	GGGCGGTAGGA GTATGTGG	amplifying exon-exon junction in *dPix* isoform *A/B/D/E/G* in qPCR experiment (Figure S7P, Q)
q-ej-distal-f	CGACAGGGAAC AACAACAAA	amplifying exon-exon junction in *dPix* isoform transcribed from the distal promoter in qPCR experiment (Figure S7P, Q)
q-ej-proximal-f	CACCAGTGGCT GATCCATTA	amplifying exon-exon junction in *dPix* isoform transcribed from the proximal promoter in qPCR experiment (Figure S7P, Q)
q-ej-distal/proximal-r	CAGTTTCGCTGA AGCAATGA	amplifying exon-exon junction in *dPix* isoform transcribed from both promoters in qPCR experiment (Figure S7P, Q)

Table S3, related to STAR Methods: Primers used to identify *dPix-I* in RT-PCR analysis

Primers for RT-PCR	Sequence	Notes	Primer name
rt-dPix-f-e7-f1	GCAAGCAATCCGAAATGGATC	Forward primer primed to the 7th exon of *dPix-F*	Primer 1
rt-dPix-f-e8-r2	CATGGATGACGCCTGGA	Reverse primer primed to the 8th exon of *dPix-F*	Primer 1
rt-dPix-f-e7-f1	GCAAGCAATCCGAAATGGATC	Forward primer primed to the 7th exon of *dPix-F*	Primer 2
rt-dPix-f-e10-r1	GGCTCTTACAATGAAGATTAAATCTAGG	Reverse primer primed to the 10th exon of *dPix-F*	Primer 2
rt-dPix-f-e7-f1	GCAAGCAATCCGAAATGGATC	Forward primer primed to the 7th exon of *dPix-F*	Primer 3
rt-dPix-e-e8-r2	ATGAAATTATAGAGCAACCAAACCAACA	Reverse primer primed to the 8th exon of *dPix-E*	Primer 3