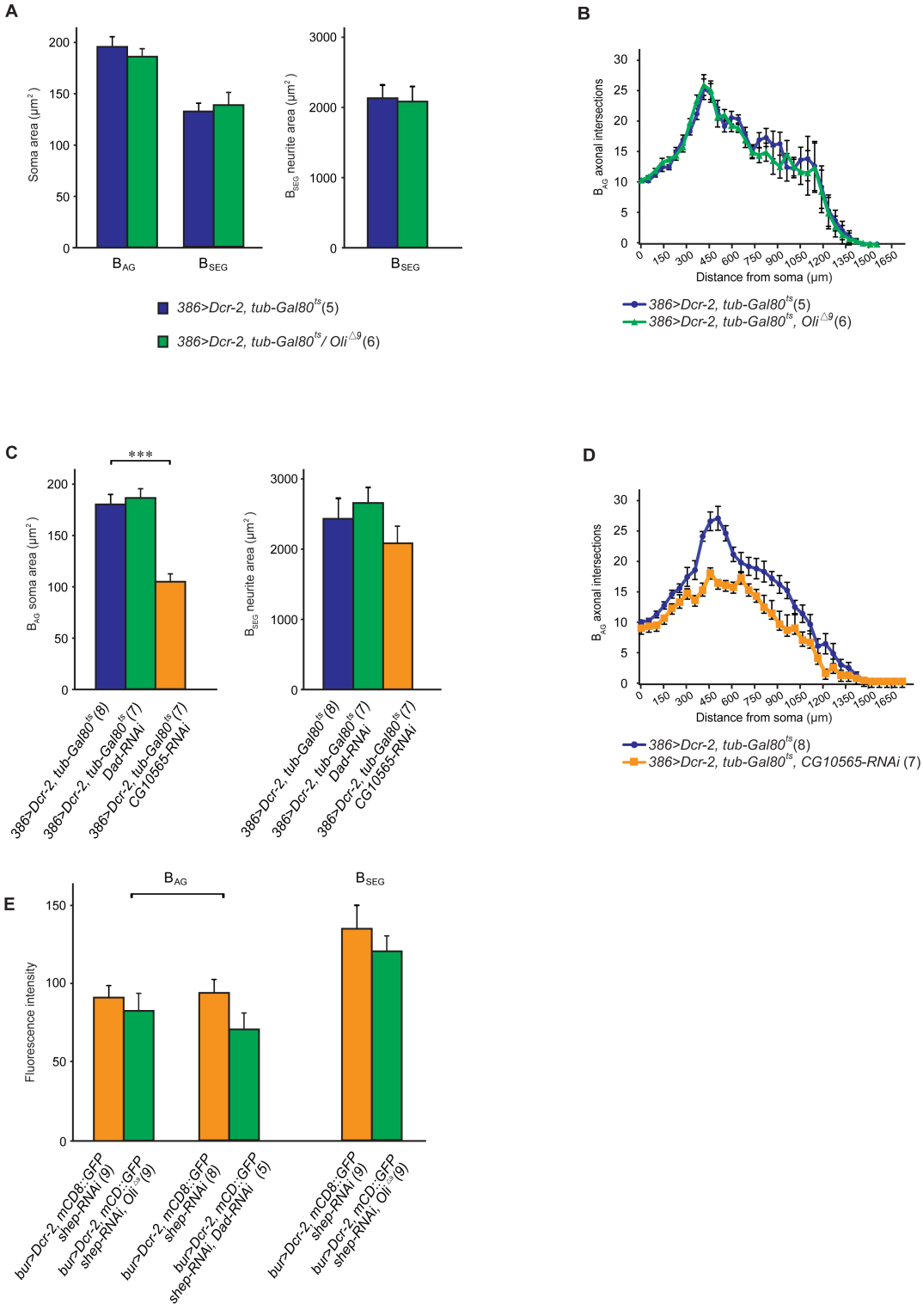
A
Soma area (µm²)
200
150
100
50
0
B_AG
B_SEG
B_SEG neurite area (µm²)
3000
2000
1000
0
B_SEG
386>Dcr-2, tub-Gal80ts(5)
386>Dcr-2, tub-Gal80ts/ Oli△9(6)
B
B_AG axonal intersections
30
25
20
15
10
5
0
0 150 300 450 600 750 900 1050 1200 1350 1500 1650
Distance from soma (µm)
386>Dcr-2, tub-Gal80ts(5)
386>Dcr-2, tub-Gal80ts, Oli△9(6)
C
***
B_AG soma area (µm²)
200
150
100
50
0
B_SEG neurite area (µm²)
3000
2000
1000
0
386>Dcr-2, tub-Gal80ts(8)
386>Dcr-2, tub-Gal80ts(7)
386>Dcr-2, tub-Gal80ts(7) Dad-RNAi
386>Dcr-2, tub-Gal80ts(7) CG10565-RNAi
D
B_AG axonal intersections
30
25
20
15
10
5
0
0 150 300 450 600 750 900 1050 1200 1350 1500 1650
Distance from soma (µm)
386>Dcr-2, tub-Gal80ts(8)
386>Dcr-2, tub-Gal80ts, CG10565-RNAi (7)
E
B_AG
B_SEG
Fluorescence intensity
150
100
50
0
bur>Dcr-2, mCD8::GFP shep-RNAi (9)
bur>Dcr-2, mCD::GFP shep-RNAi, Oli△9(9)
bur>Dcr-2, mCD8::GFP shep-RNAi (8)
bur>Dcr-2, mCD::GFP shep-RNAi, Dad-RNAi (5)
bur>Dcr-2, mCD8::GFP shep-RNAi (9)
bur>Dcr-2, mCD::GFP shep-RNAi, Oli△9(9)

Figure S5. RNAi or mutant allele transgenes did not affect morphology of bursicon neurons on their own. (A-B) The $Oli^{\Delta 9}$ mutant allele did not affect soma size or neurite morphology (B, Sholl analysis) of the bursicon neurons in the absence of *shep* RNAi. $P>0.05$, Student's *t*-test. (C) *Dad* RNAi did not affect morphology of bursicon neurons in the absence of *shep* RNAi. *CG10565* RNAi alone was sufficient to result in smaller B_{AG} soma sizes. $P< 0.00001$, One-way ANOVA, (***, $P<0.001$, Tukey HSD *post hoc*). (D) *CG10565* RNAi alone was sufficient to result in fewer axonal projections of B_{AG} cells. (E) Both $Oli^{\Delta 9}$ and *Dad* RNAi showed similar GFP expression levels in the B_{AG} and B_{SEG} cells, suggesting that they suppressed loss-of-*shep* phenotypes without affecting general transcription levels. $P>0.05$, Student's *t*-test.