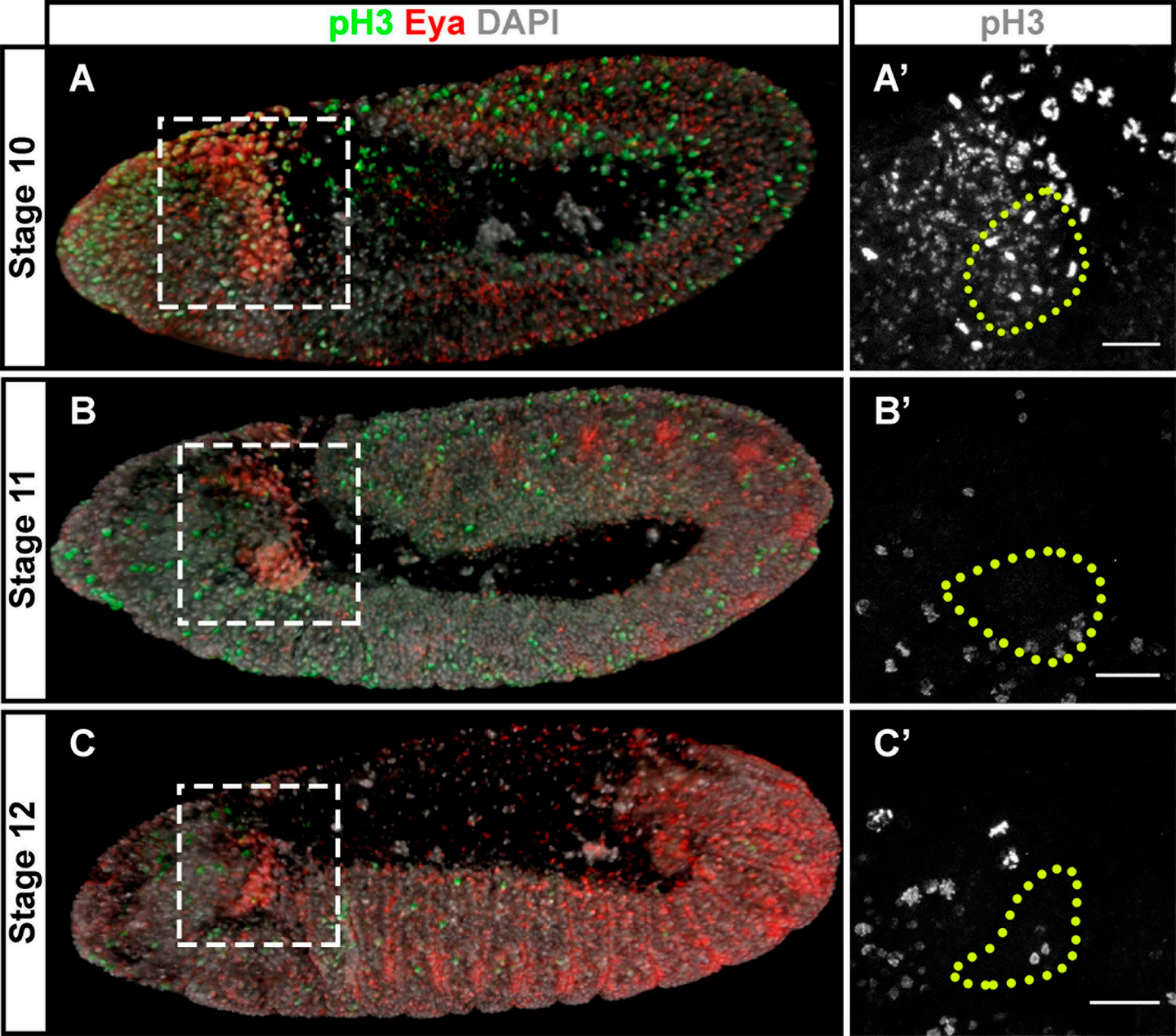
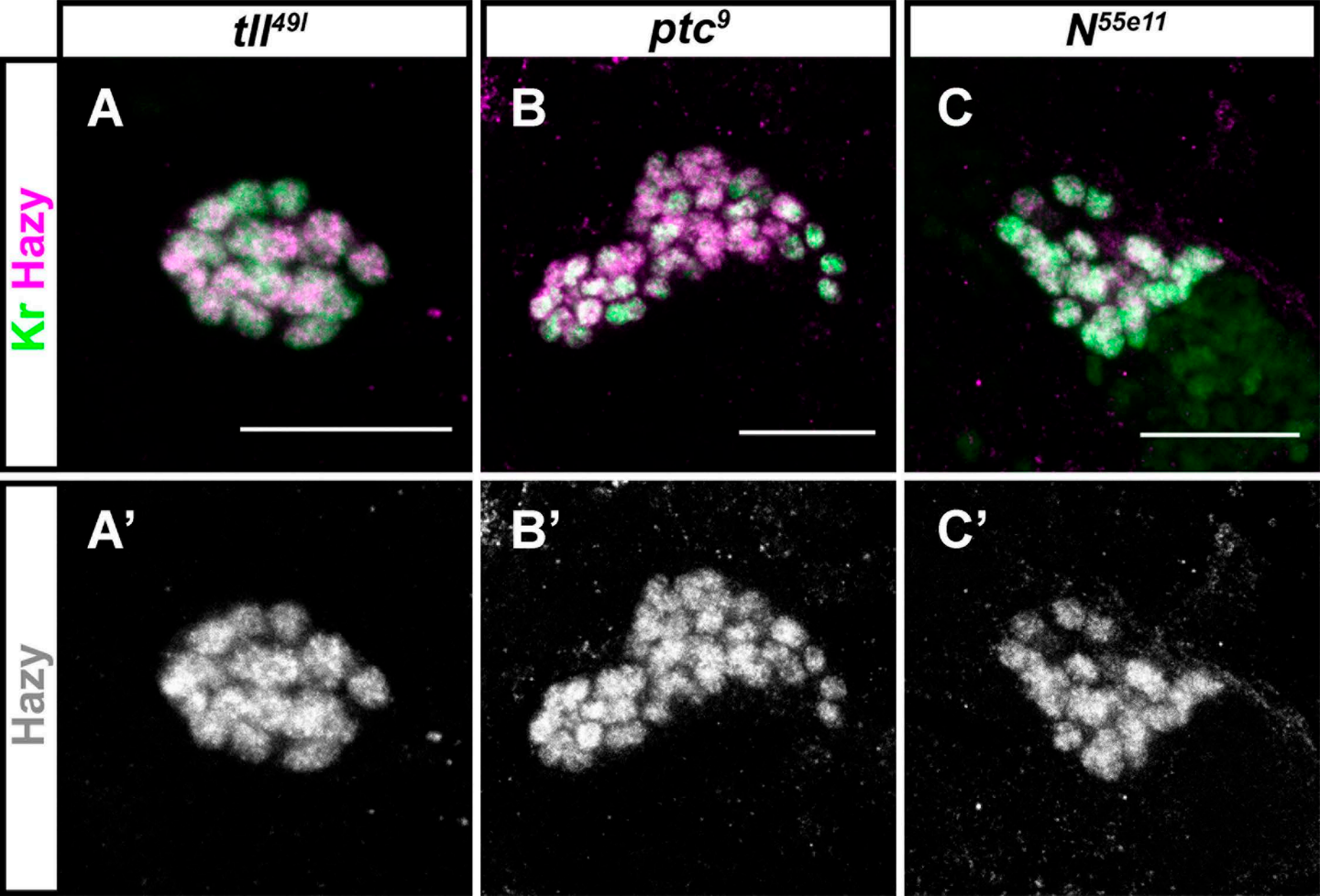
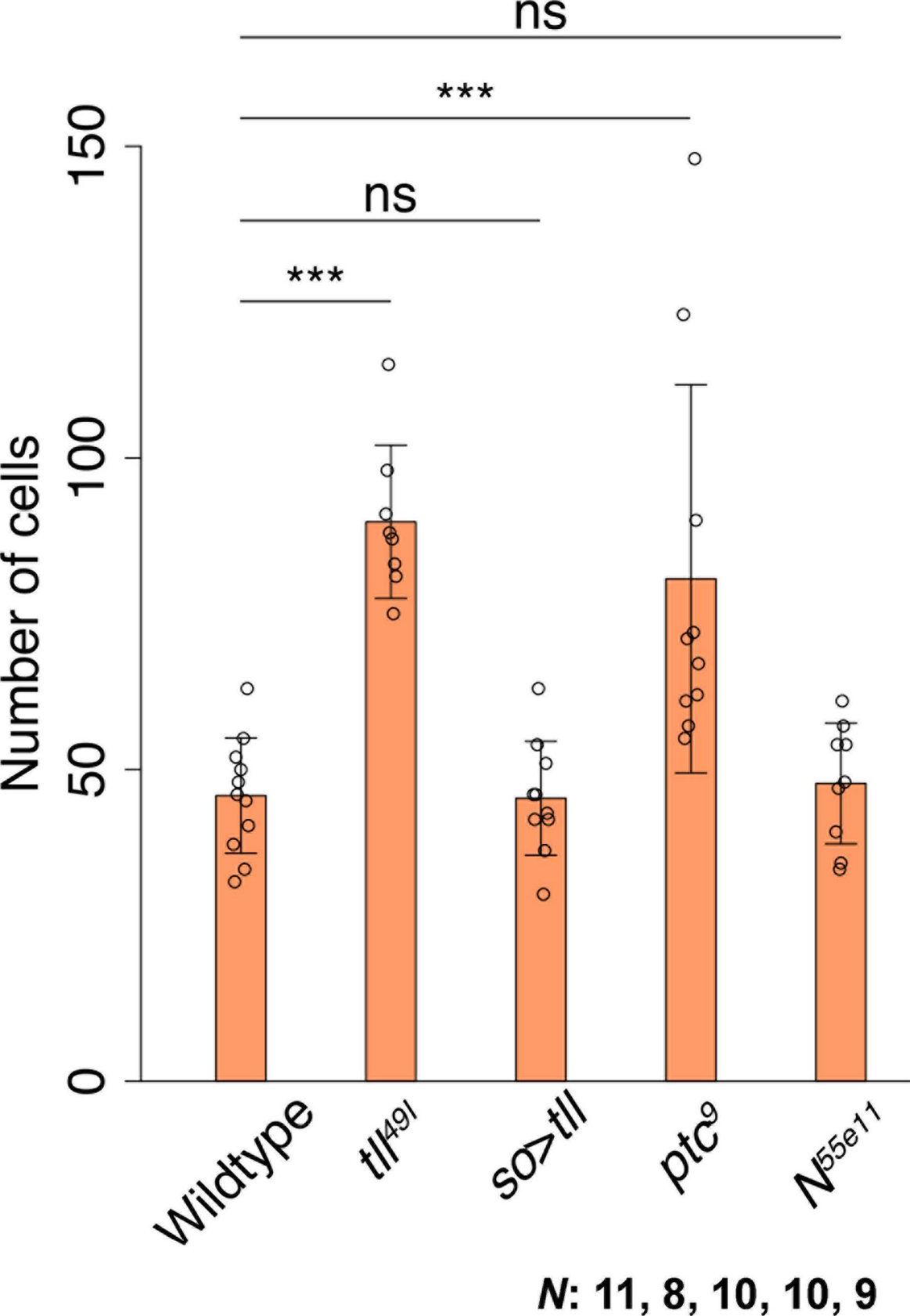
S1 Fig. pH3 expression in the optic placode.
We analyzed the number of mitotically active cells in the optic placode by staining against pH3 (green). We also used antibodies against Eya (red) to identify the optic placode (yellow outline), and we counterstained with DAPI (grey). At stage 10 virtually all Eya-positive cells in the placode co-express pH3 (A), but very few express it later, during stages 11 (B) and 12 (C). Scale bars represent 20 μm.

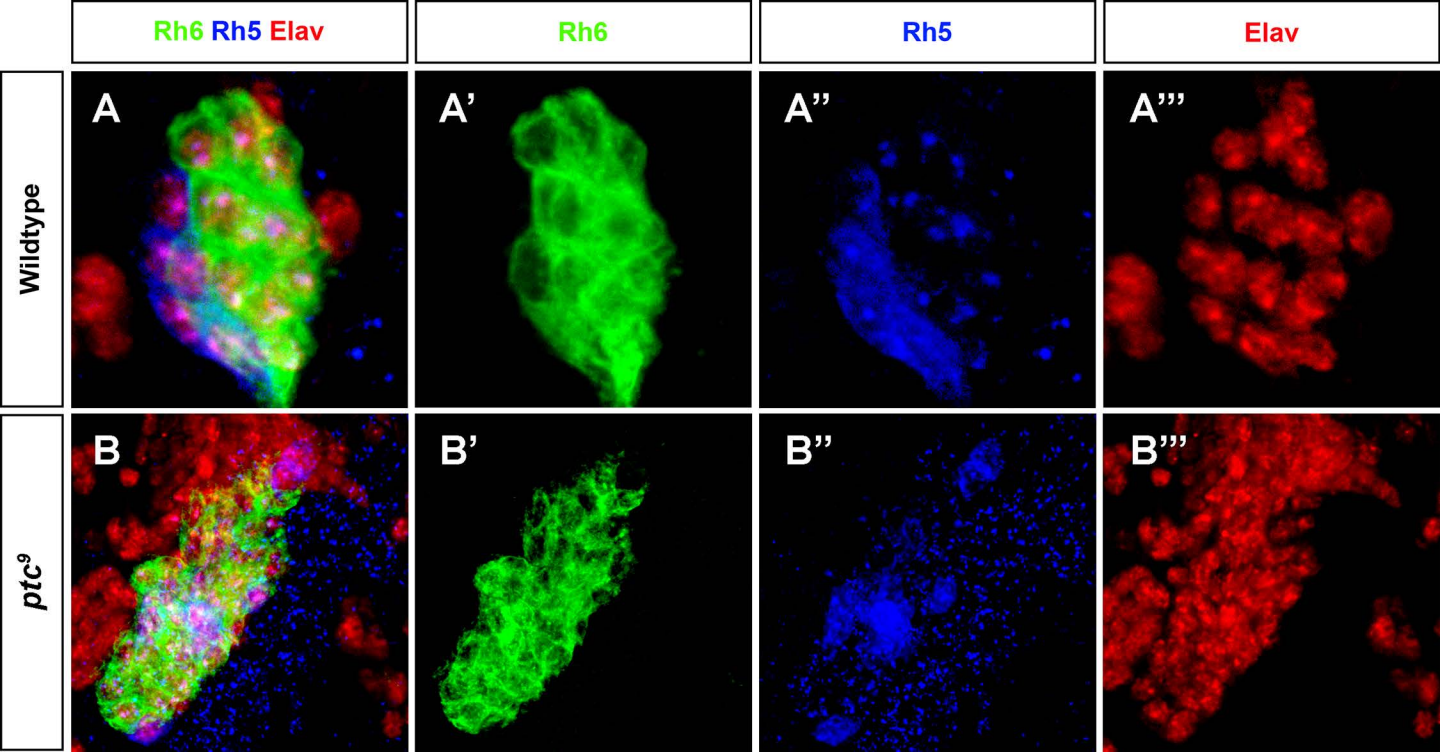
S2 Fig. The PR marker Hazy is expressed in all PR precursors in tll49l, ptc9, and N55e11 mutants.
We stained against Kruppel (green) to label the larval eye in embryos around stage 14, and co-stained against Hazy (magenta). Hazy is a transcription factor that regulates the development of all types of Drosophila PRs in wildtype conditions [17, 18, 65]. Similar to wildtype, all PR precursors express Hazy in tll (A), ptc (B) and Notch (C) mutant embryos. Scale bars represent 20 μm.

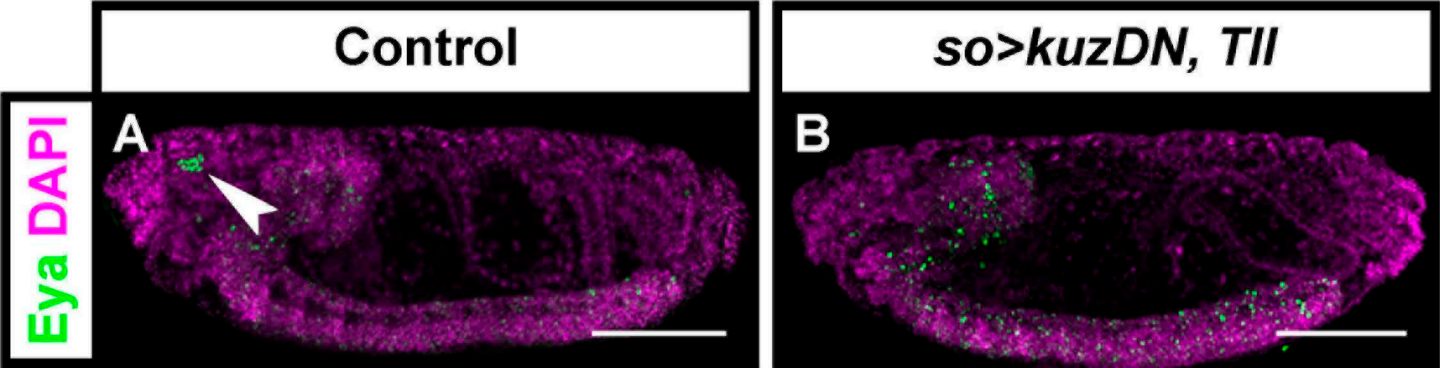
S3 Fig. Quantification of optic placode cell numbers.
The optic placode contains the same number of cells in N55e11 mutants and so>tll embryos compared to wildtype embryos (counted at stage 11). The number of cells in the optic placode is increased in tll49l mutants and ptc9 mutants compared to wildtype embryos (counted at stage 11). Number of all optic placode cells: Anova: $p<0.001$ $F(4,43) = 15.05$; wildtype vs tll49l $p<0.001$, $t = -5.627$; wildtype vs so>tll p =

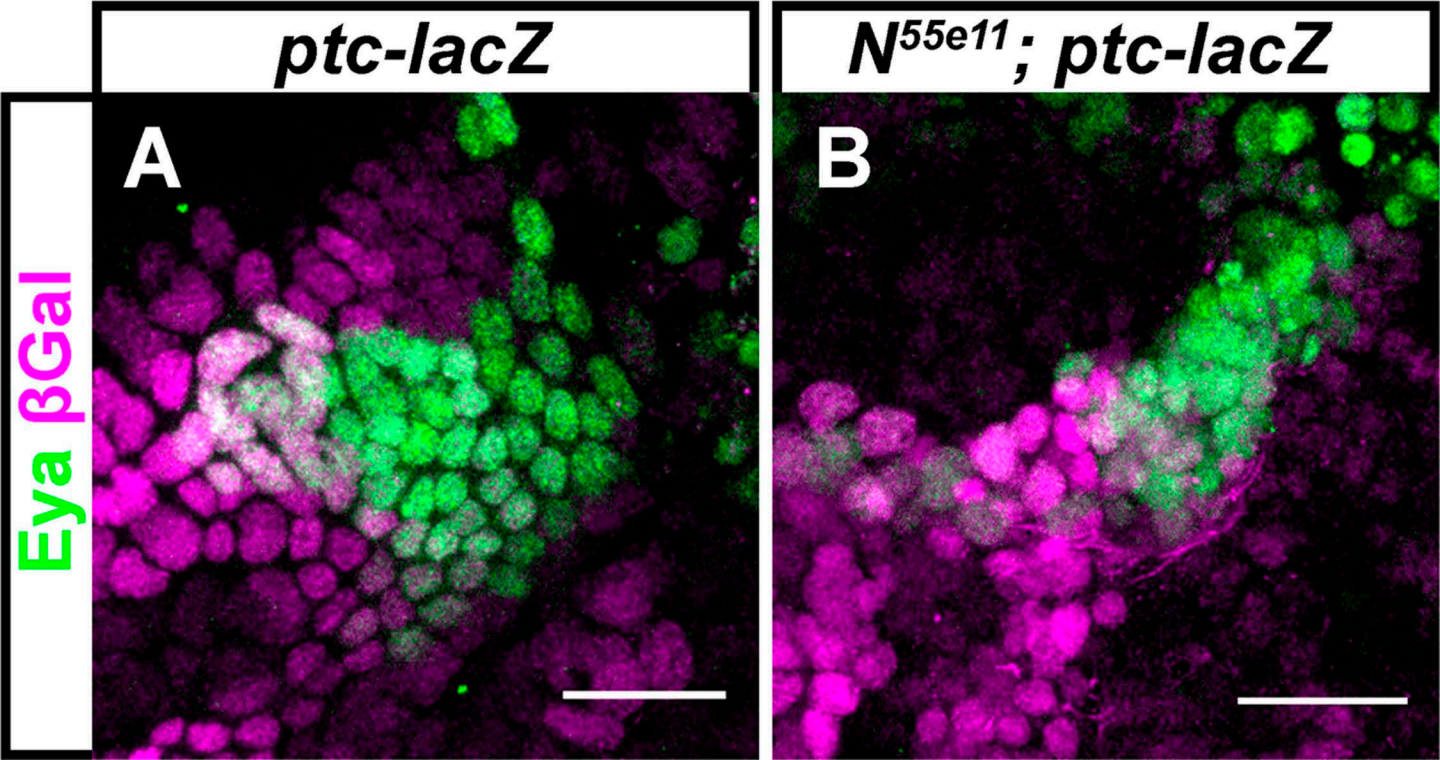

pH3 Eya DAPI
pH3
Stage 10
Stage 11
Stage 12
A
A'
B
B'
C
C'


tll49l
ptc9
N55e11
A
B
C
Kr Hazy
A'
B'
C'
Hazy


ns
***
ns
***
Number of cells
0
50
100
150
Wildtype
tll49l
so>tll
ptc9
N55e11
N: 11, 8, 10, 10, 9


Rh6 Rh5 Elav
Rh6
Rh5
Elav
Wildtype
ptc9
A
A'
A''
A'''
B
B'
B''
B'''


Control
so>kuzDN, Tll
Eya DAPI
A
B


ptc-lacZ
N55e11; ptc-lacZ
A
B
Eya βGal