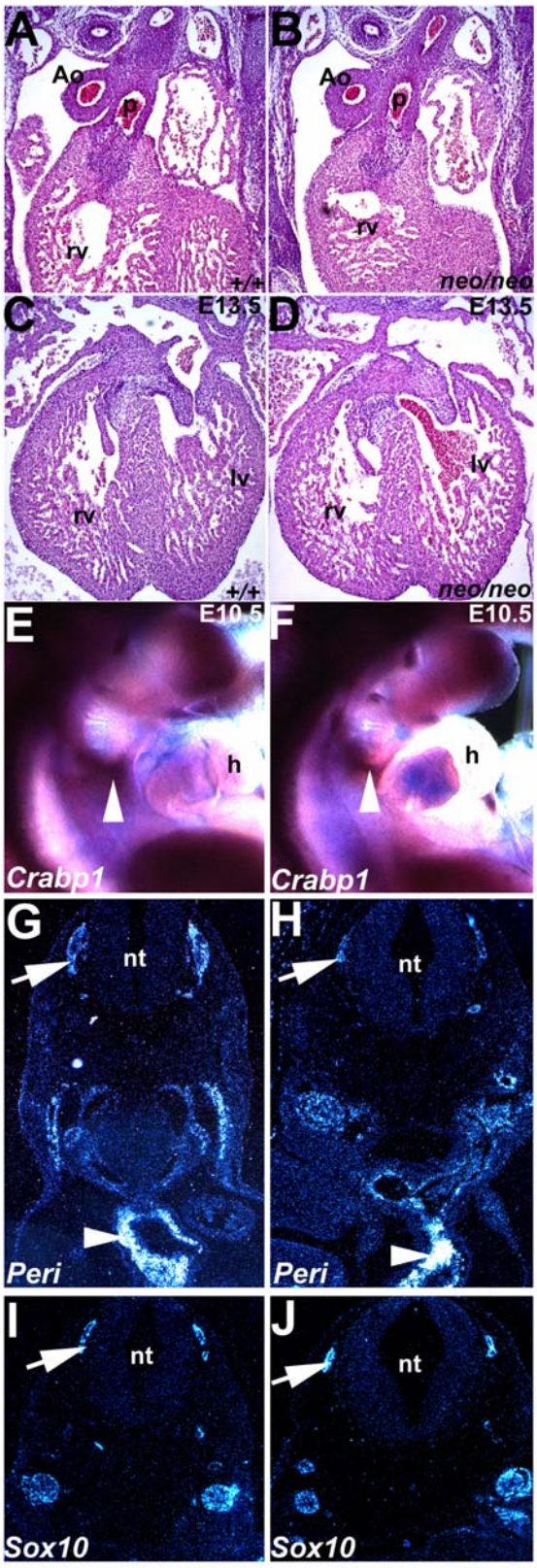
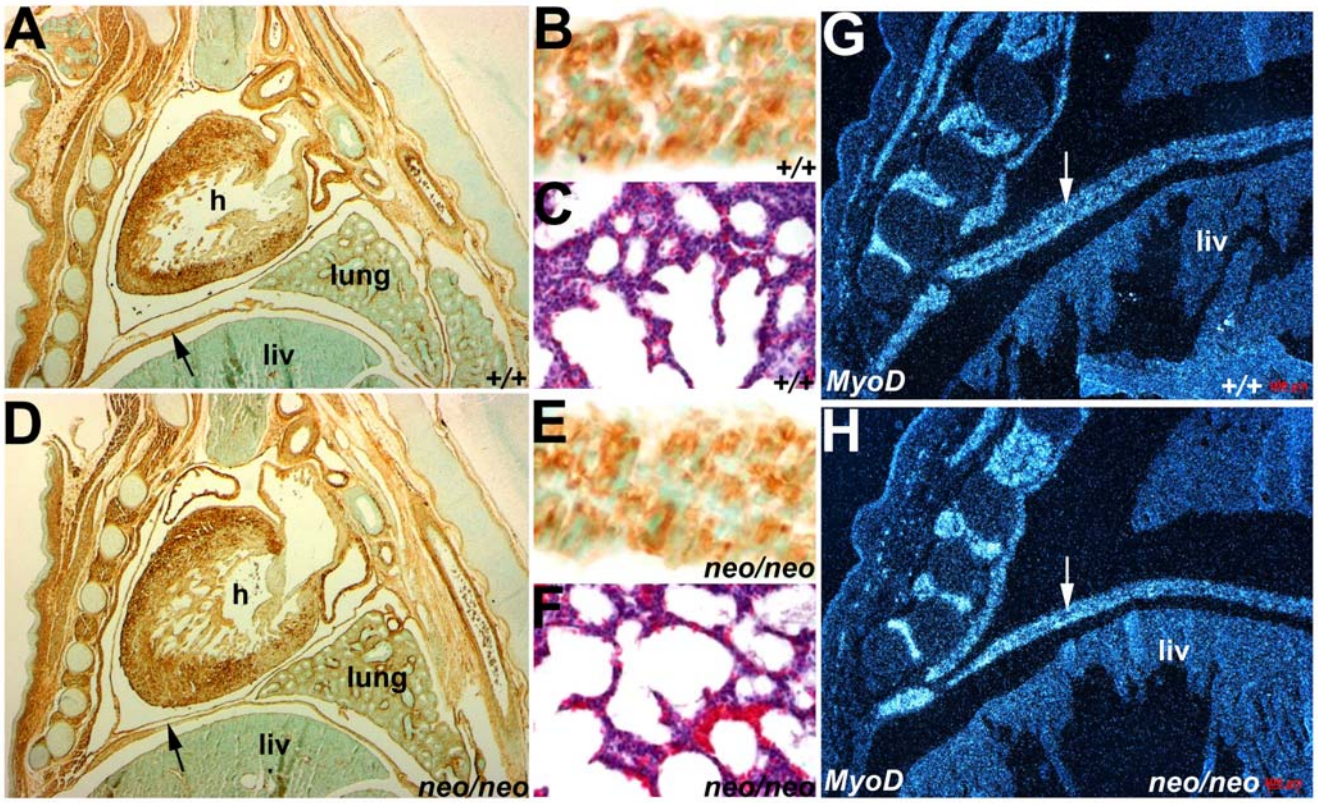


Supplemental Figure 1

Supplemental Figure 1. Reduced Pax3 expression levels do not affect *Pax3$^{neo/neo}$* neural crest morphogenesis or heart development. (A-D) H&E stained transverse sections of E14.5 wildtype (+/+, A,C) and *Pax3$^{neo/neo}$* (neo/neo, B,D) hearts revealed the *Pax3$^{neo/neo}$* OFT is appropriately septated (B) and the interventricular septum is intact (D). **(E,F)** Wholemount non-radioactive *Crabp1 in situ* hybridization revealed that appropriate cardiac NC migration (arrowhead) occurs within *Pax3$^{neo/neo}$* E10.5 embryos, whilst radioactive *in situ* hybridization analysis for both *Periostin (Peri)* **(G,H)** and *Sox10* **(I,J)** revealed that NC-derived *Pax3$^{neo/neo}$* dorsal root ganglia (arrows) are unaffected. Similar patterns of *Periostin* expression are also present within the wildtype (G) and *Pax3$^{neo/neo}$* (H) OFT mesenchymal cushions (arrowheads), indicating that OFT morphogenesis occurs normally despite the reduced *Pax3* expression levels. Abbreviations: h, heart; nt, neural tube; Ao, aorta; P, pulmonary artery; lv, left ventricle; rv, right ventricle.



Supplemental Figure 2

Supplemental Figure 2. Diaphragmatic muscle morphogenesis tolerates reduced Pax3 levels. Immunohistochemistry (for αsmooth muscle actin; αSMA), H&E and radioactive *in situ* detection of *MyoD* mRNA muscle marker expression were used to assess development of the diaphragm. **(A,B)** Wildtype (+/+) and **(D,E)** *Pax3*$^{neo/neo}$ E15.5 sagittal sections stained for αSMA expression. B & E are enlarged views of αSMA-stained diaphragm indicated via arrows in A&D. Note αSMA expression and thickness is comparable between the two genotypes. **(C,F)** H&E staining of newborn lung, showing inflated alveoli with similar sized air spaces and alveoli thickness in wildtype (C) and *Pax3*$^{neo/neo}$ (F). **(G,H)** *In situ* hybridization of *MyoD* on serial E15.5 sagittal sections. Note *MyoD* is robustly expressed in both wildtype (G) and hypomorhpic (H) diaphragmatic (arrows), intercostal and abdominal muscle masses.