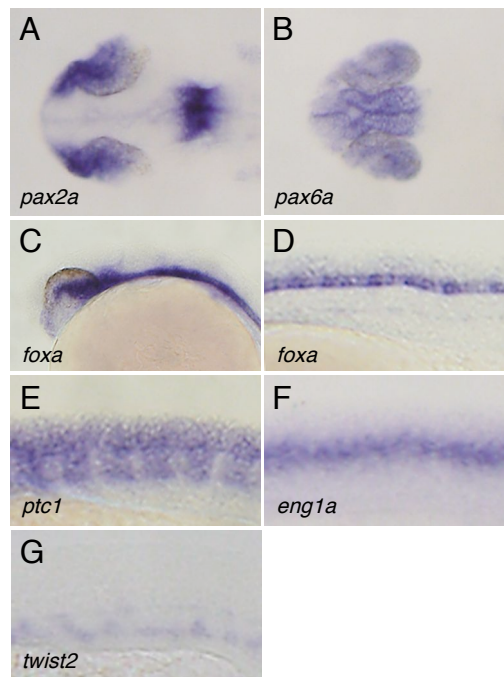


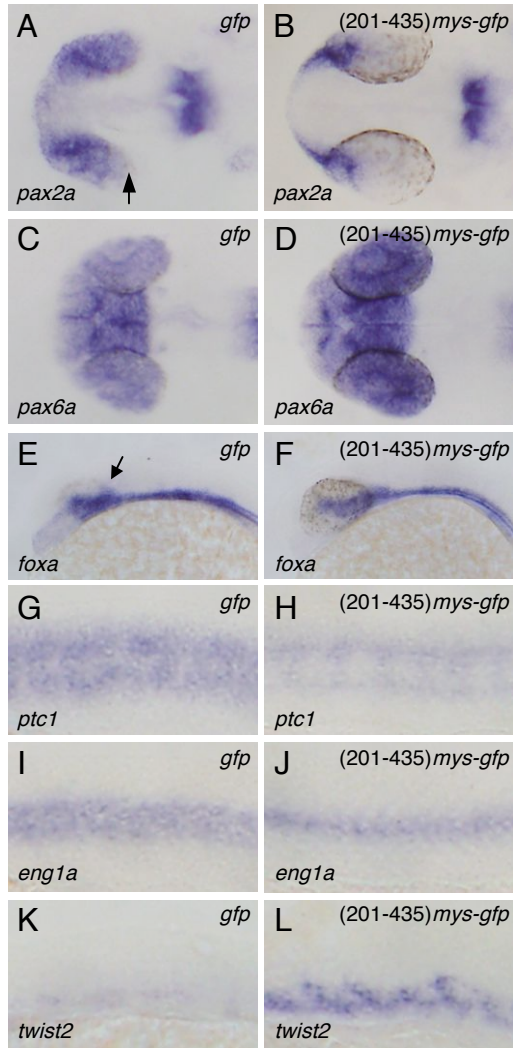
SUPPLEMENTAL FIGURE LEGENDS

FIG. S1. Effects of Mys knockdown by *mys* SD-MO on patterning of the eyes, neural tube and somites. In situ hybridization with probes for *pax2a* (A), *pax6a* (B), *foxa* (C and D), *ptc1* (E), *eng1a* (F) and *twist2* (G). Dorsal (A, B) and lateral views (C-G) of embryos injected with *mys* SD-MO. Embryos fixed at 26 hpf (A-F) and 20 hpf (G). The embryos injected with *mys* SD-MO exhibited expanded expression domain of *pax2a* (A) (12 out of 14 embryos, 86%), *foxa* (C-D) (16 out of 20 embryos, 80%), *ptc1* (E) (20 out of 20 embryos, 100%) and *eng1a* (F) (20 out of 22 embryos, 91%) and reduced expression of *pax6a* (B) (14 out of 16 embryos, 88%) and *twist2* (G) (22 out of 30 embryos, 73%).

FIG. S2. Rescue experiment by injection of mutant *mys-gfp* mRNA. In situ hybridization with probes for *pax2a* (A, B), *pax6a* (C, D), *foxa* (E, F), *ptc1* (G, H), *eng1a* (I, J) and *twist2* (K, L). Dorsal (A-D) and lateral views (E-L) of embryos injected with *gfp* mRNA (A, C, E, G, I, K) or (aa 201-435)*mys-gfp* mRNA (B, D, F, H, J, L) prior to injection with *mys* MO. Embryos fixed at 26 hpf (A-J) and 20 hpf (K, L). Arrows indicate expanded region of *pax2* expression (A) and *foxa* expression (E). Injection of *gfp* mRNA prior to injection of *mys* MO did not affect the altered expression patterns of *pax2a* (A) (16 out of 18 embryos, 89%), *pax6a* (C) (12 out of 17 embryos, 71%), *foxa* (E) (15 out of 17 embryos, 88%), *ptc1* (G) (17 out of 22 embryos, 77%), *eng1a* (I) (20 out of 23 embryos, 87%) and *twist2* (K) (27 out of 33 embryos, 82%). In contrast, injection of (aa 201-435)*mys-gfp* mRNA prior to injection of *mys* MO could rescue the altered expression patterns of *pax2a* (B) (17 out of 22 embryos, 77%), *pax6a* (D) (17 out of 21 embryos, 81%), *foxa* (F) (18 out of 24 embryos, 75%), *ptc1* (H) (17 out of 23 embryos, 74%), *eng1a* (J) (16 out of 20 embryos, 80%) and *twist2* (L) (15 out of 20 embryos, 75%).



Kotani et al., Figure S1



Kotani et al., Figure S2