



**Supplementary information, Figure S4** Gpr183 influences HE development after 24 hpf. (A, B) Time-course expression of *runx1/cmyb* in *gpr183* mutants and the dot-blot quantification analysis. Error bar,  $\pm$  s. d. \* $p < 0.05$ , \*\* $p < 0.01$ . (C) Time-course expression of *runx1/cmyb* in embryos treated with clotrimazole (from 10 somites). (D) *runx1/cmyb* expression in embryos treated with clotrimazole (from 24 hpf). Red arrowheads denote *runx1/cmyb* expression in the AGM region.