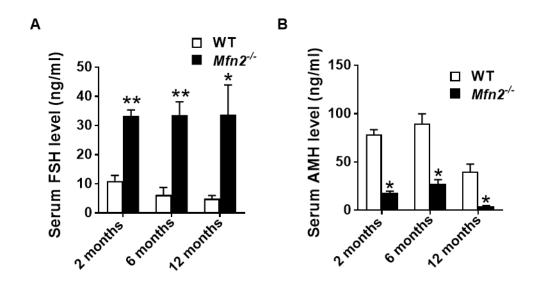
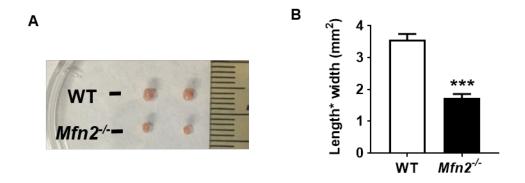
SUPPLEMENTARY MATERIAL

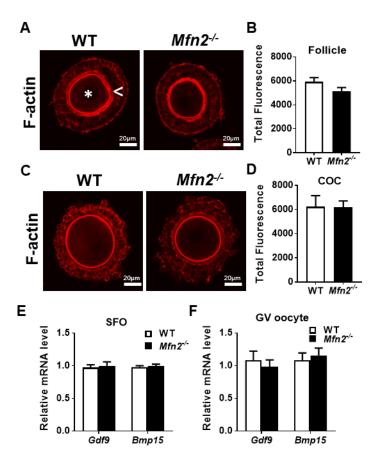
Supplementary Figures



Supplementary Figure 1. Serum AMH and FSH levels in female $Mfn2^{-/-}$ mice. (A, B) Serum FSH and AMH levels in 2, 6- and 12 months old female WT and $Mfn2^{-/-}$ mice. Data presented as mean \pm SEM. *p < 0.05, **p < 0.01 vs. WT from t-test.



Supplementary Figure 2. Ovarian size is decreased in $Mfn2^{-/-}$ **mice. (A)** Representative photographs of ovaries from 8-week-old $Mfn2^{-/-}$ and WT mice. **(B)** $Mfn2^{-/-}$ mice had significantly smaller ovaries. Data presented as mean \pm SEM. **p < 0.01 vs. WT from t-test.



Supplementary Figure 3. TZP formation is not changed in $Mfn2^{-/-}$ secondary follicles of COCs. (A, C) Secondary follicles and COCs were isolated from the ovaries of $Mfn2^{-/-}$ and WT mice, fixed, labeled with rhodamine-phalloidin, and examined by confocal microscopy. Asterisk designates oocyte; open arrow designates labeling of TZPs. (B, D) The total peak intensity for the zona pellucida and plasma membrane was calculated. (E, F) qRT-PCR analysis of Gdf9 and Bmp15 expression in $Mfn2^{-/-}$ and WT SFOs and GV stage oocytes. Data presented as mean \pm SEM.