

Figure S1. Validation of anti-TEX33 antibody effectiveness and specificity. (A) ELISA assay showing the titers of the anti-TEX33 antibody at dilutions up to 1:1,000,000. (B) Western blot analysis conducted using *Tex33*^{+/+}, *Tex33*^{+/-} and *Tex33*^{-/-} mice revealed that TEX33 protein was absent from the testes of *Tex33*^{-/-} mice. (C) Immunofluorescence analysis showed that TEX33 protein was localized to not only the spermatids and sperm within the seminiferous tubules of *Tex33*^{+/+} mice, but also (D) the manchette, (E) acrosome and (F) flagellum at high magnification. A450, absorbance at 450 nm; 1-5, the number of the individual rabbit; TEX33, testis-expressed protein 33; +/+, *Tex33*^{+/+} (wild-type) mice; +/-, *Tex33*^{+/-} (heterozygous) mice; -/-, *Tex33*^{-/-} (homozygote) mice; DAPI, 4',6-diamidino-2-phenylindole; A, acrosome (indicated by arrowheads); M, manchette (indicated by arrowheads)..

