

Expanded View Figures

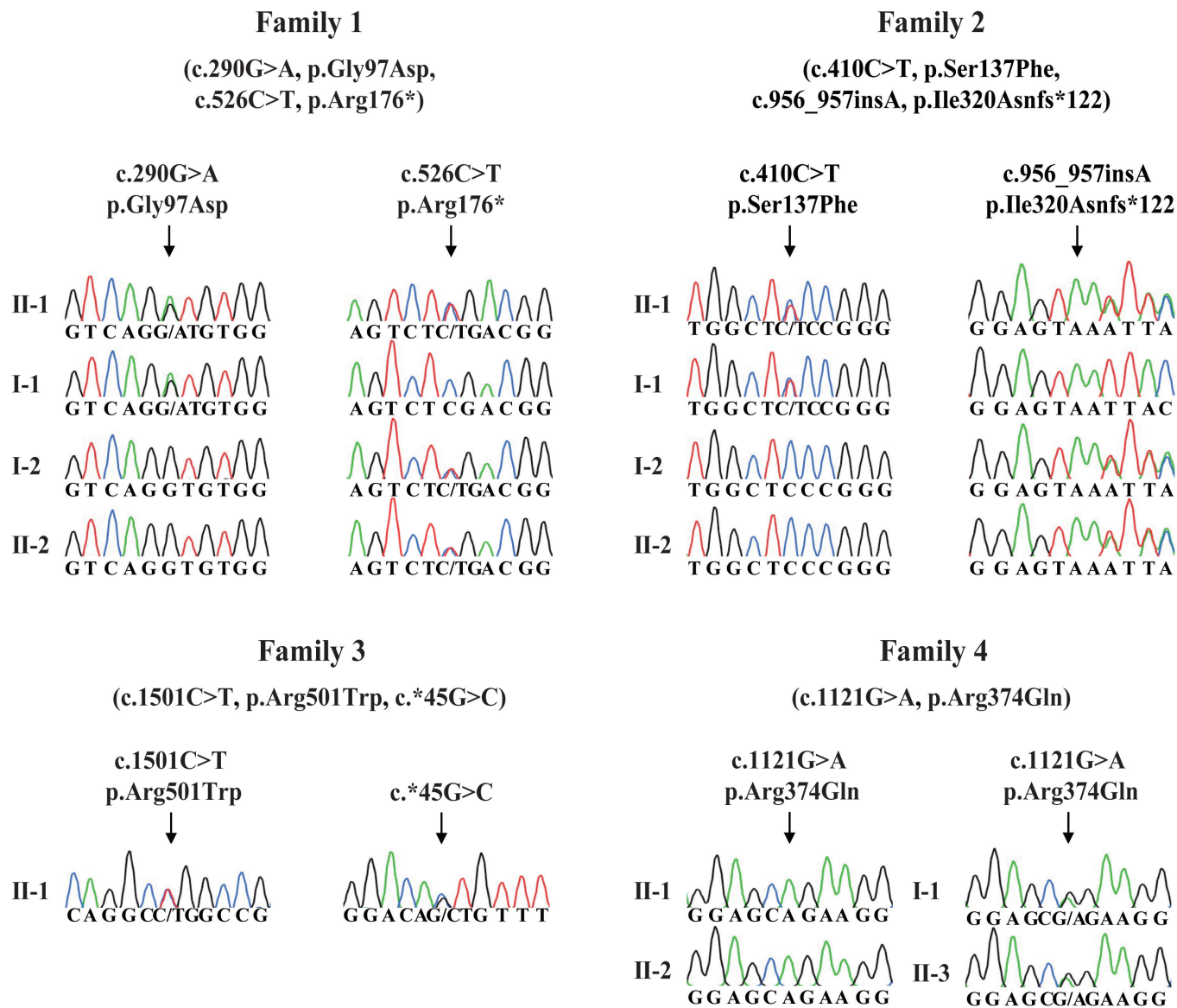


Figure EV1. Sanger sequencing confirmation of *PABPC1L* variants in four families.

PABPC1L variants observed in the four families were confirmed using Sanger sequencing. Arrows indicate the mutation sites.

Source data are available online for this figure.

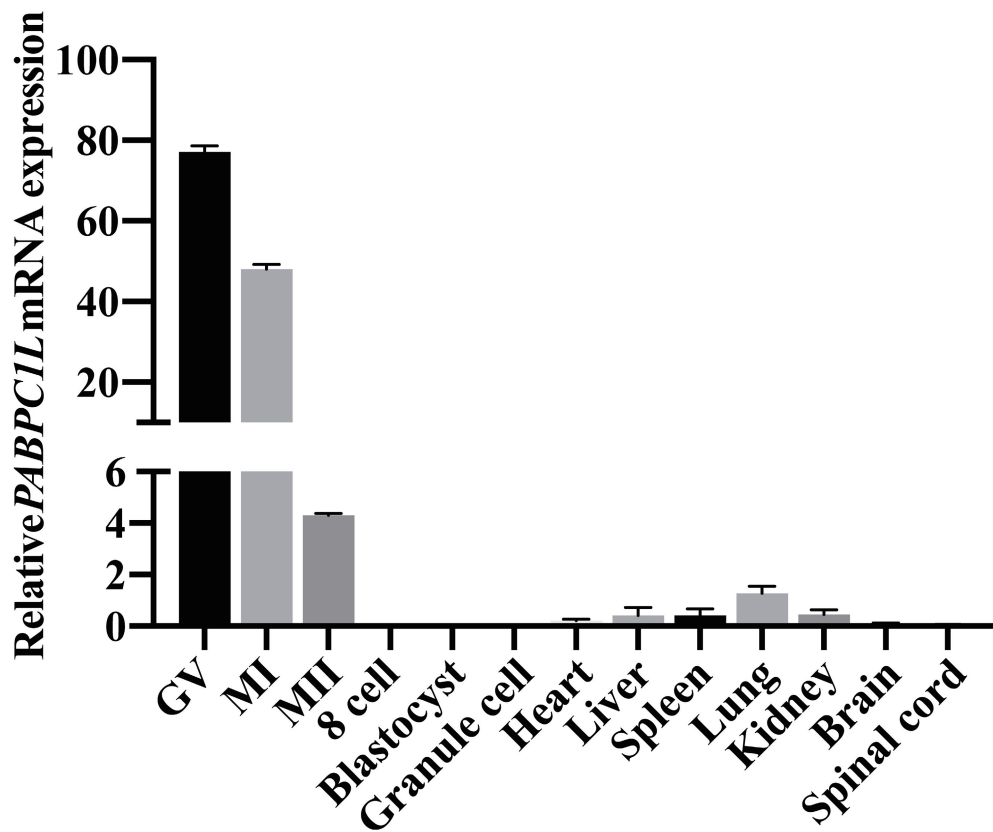


Figure EV2. Relative expression level of PABPC1L mRNA in different stages of human oocytes, embryos and several somatic tissues.

The relative expression of PABPC1L mRNA in different stages of human oocytes, early embryos, and several somatic tissues was measured by qRT-PCR and normalized to the expression of GAPDH mRNA (control). $n = 3$ biological replicates. Error bars denote the SD.

Source data are available online for this figure.

Figure EV3. Genotyping and phenotype analyses in homozygous Pabpc1l KI mice.

- A Sanger sequencing showing the homozygous mutations in *Pabpc1l* KI mice. Red asterisks indicate the mutation sites, and the blue asterisk indicates the synonymous mutation site.
- B Ovary morphology of 12-week-old WT and *Pabpc1l* KI mice. Scale bar represents 1 mm.
- C Histological sections of ovaries from 12-week-old WT and *Pabpc1l* KI mice were stained with hematoxylin and eosin. Scale bars represent 200 μm .
- D Representative images of superovulated oocytes of WT and *Pabpc1l* KI mice. The black arrows indicate PB1. Scale bar represents 100 μm .
- E Quantitative analysis of the fertilization rate of WT and *Pabpc1l* KI mice. The number of analyzed embryos is indicated (N). $n = 8$ biological replicates for *Pabpc1l*^{WT/WT}, *Pabpc1l*^{G97D/G97D}, and *Pabpc1l*^{S137F/S137F} mice. $n = 2$ biological replicates for *Pabpc1l*^{R374Q/R374Q} mice. The statistics are analyzed by unpaired two-tailed Student's t -test. Data are shown as mean and SD. ns, not significant.

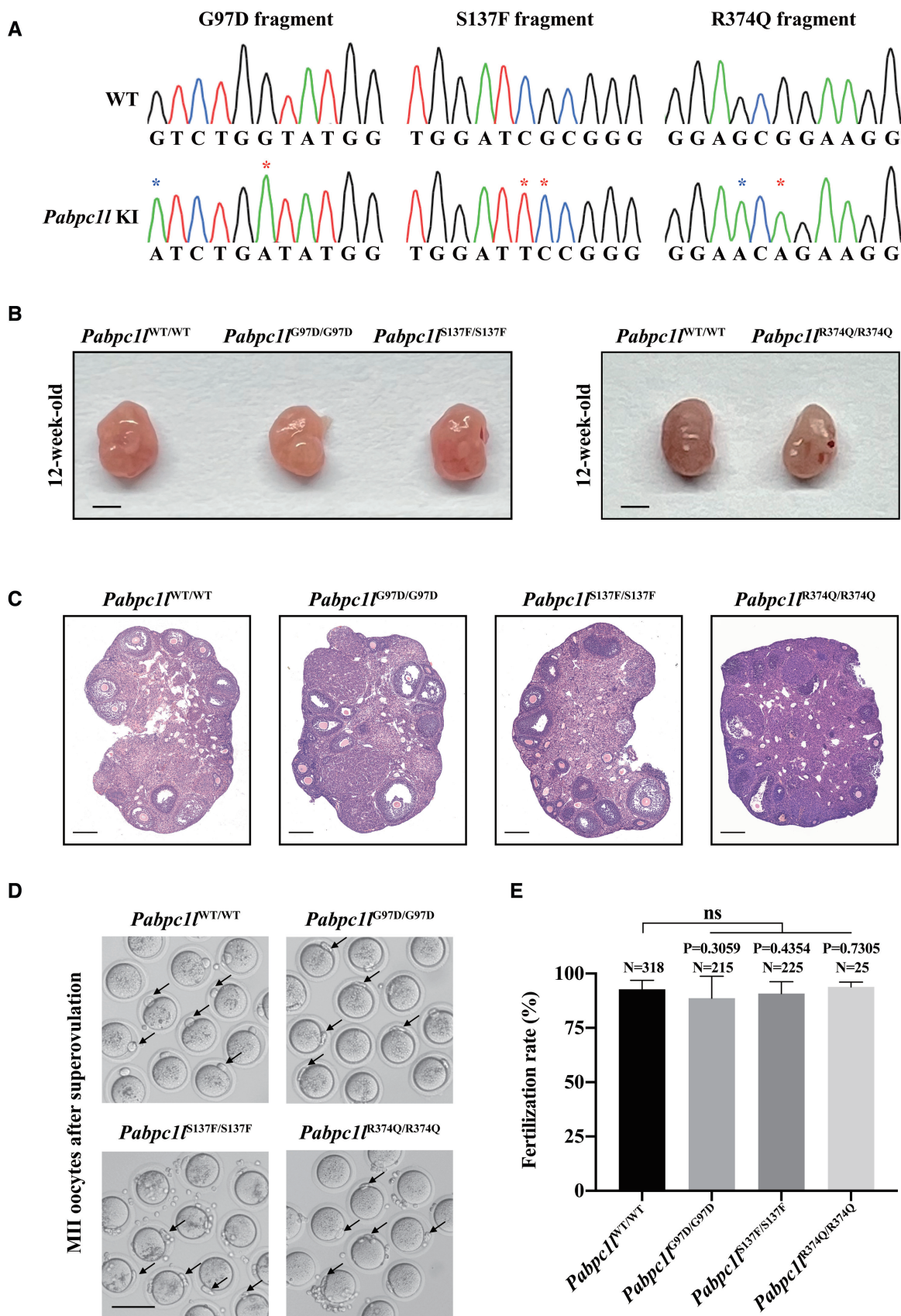


Figure EV3.