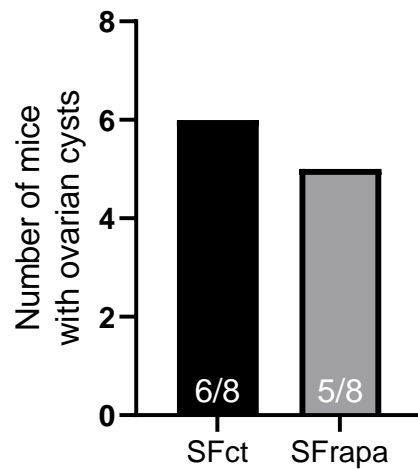
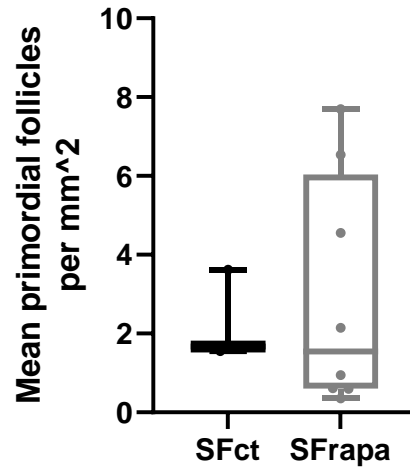


**Figure S1.** Correlation between having a regular estrus cycle and the ability to give birth for mice orthotopically autotransplanted with ovaries slow-frozen in control medium or with ovaries slow-frozen in medium supplemented with rapamycin after chemical disabling of the remaining ovary. Chi-square test: \*\*  $P \leq 0.01$ .  $n = 40$  total mice. Results contain pooled data from the control and rapamycin groups.



**Figure S2.** Comparison of cyst formation at the end of the experiment in SFct or SFrapa mice ovaries orthotopically autotransplanted to the remaining ovarian bursa of C57BL/6 mice for a total of  $\pm 6$  months. SFct = ovaries slow-frozen in control medium, SFrapa = ovaries slow-frozen in medium supplemented with rapamycin.  $n = 8$  mice per group.



**Figure S3.** Primordial follicle density assessment at the end of the experiment in mice ovaries orthotopically autotransplanted to the remaining ovarian bursa of C57BL/6 mice for  $\pm$  6 months. Results are expressed as the number of primordial follicles per mm<sup>2</sup>. SFct = ovaries slow-frozen in control medium, SFrapa = ovaries slow-frozen in medium supplemented with rapamycin. Only mice and ovarian sections with at least 1 remaining primordial follicle were taken into account. Each point represents the mean of all section analyzed per ovary. SFct: n = 3 mice, SFrapa: n = 8 mice.