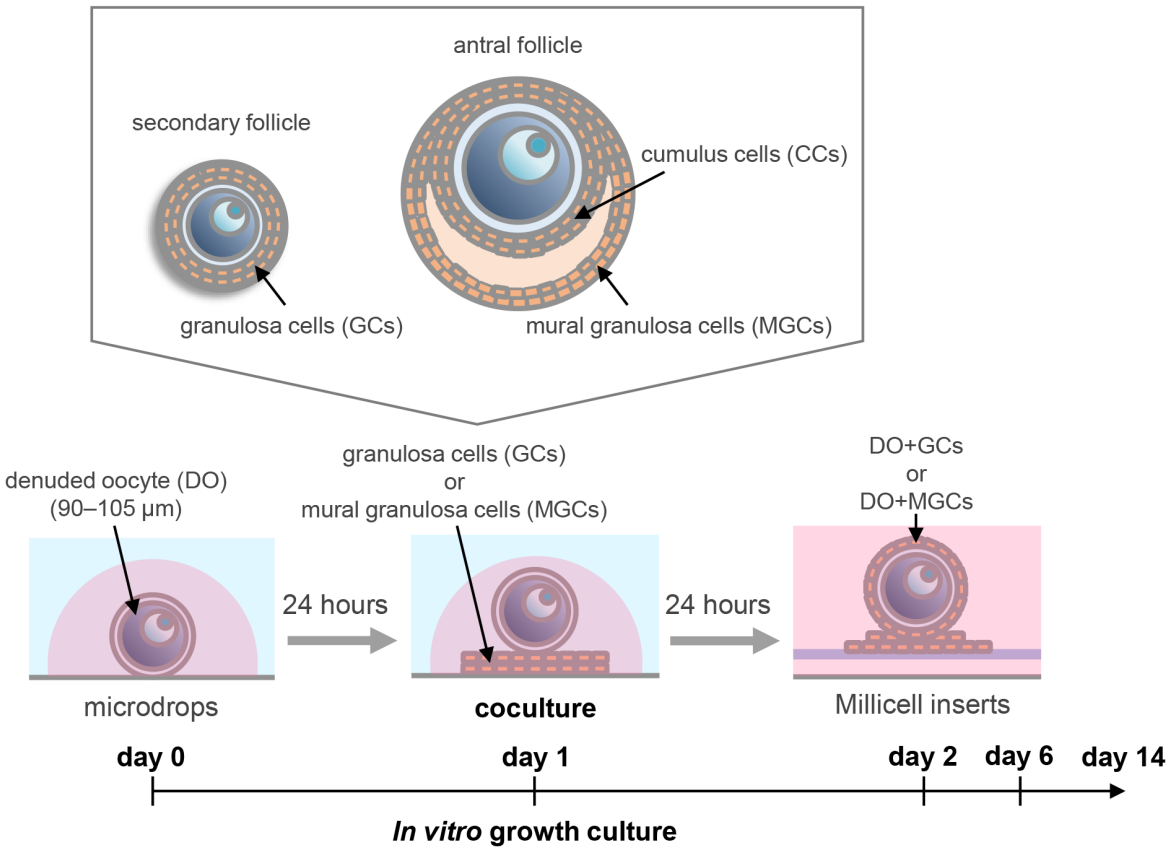
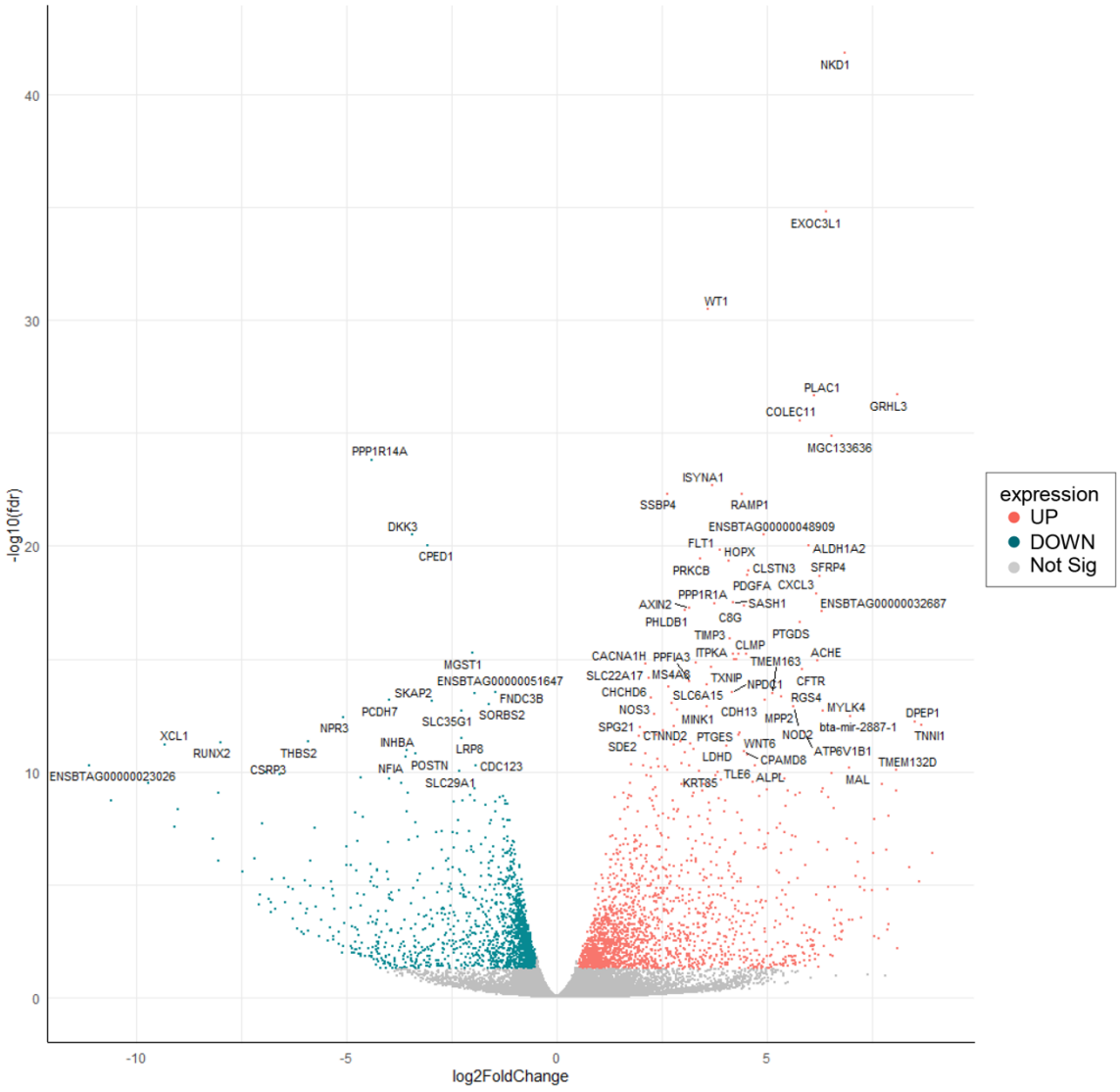


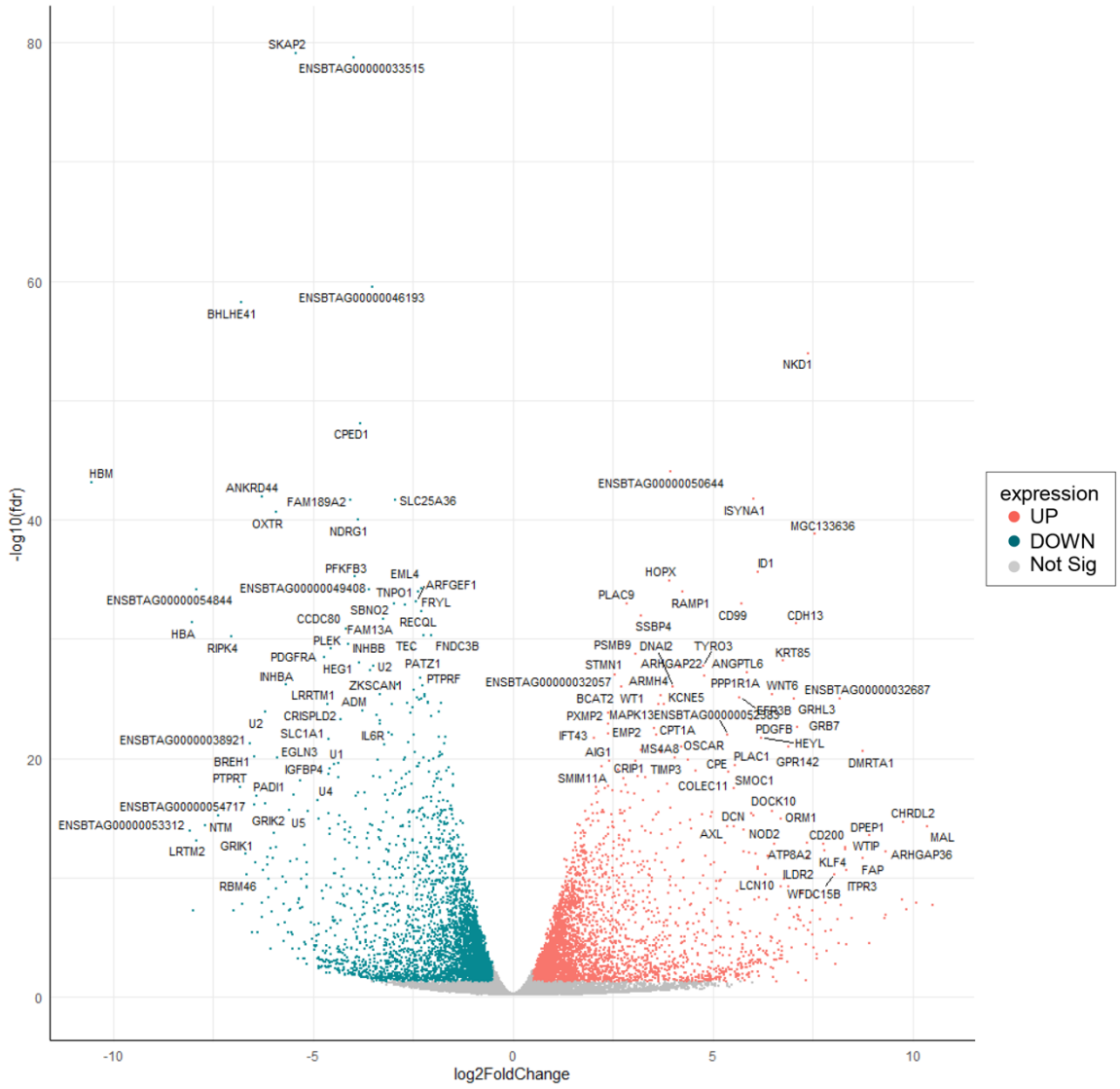
Supplementary Fig. 1.

Schematic illustration of the experimental design. To prepare TZP-free DOs, DOs (90–105 μm) collected from early antral follicles were cultured individually in 12 μl microdrops of culture medium covered with paraffin oil in Petri dishes for 24 h. To reconstruct oocyte-GC complexes and oocyte-MGC complexes, GCs from secondary follicles, and MGCs from early and late antral follicles were cocultured with TZP-free DOs individually in 12 μl microdrops of culture medium for 24 h. After coculture, the reconstructed complexes in which GCs and MGCs adhered to DOs (DO+GCs and DO+MGCs) were transferred to Millicell inserts and cultured for 4 or 12 days.



Supplementary Fig. 2.

MA-plot of the datasets of the early group and the late MGCs group. Dots are genes, x-axis indicates the log2 fold change, and y-axis indicates the -log10 FDR. Up-regulated genes (FDR < 0.05; log2 fold change > 0, n = 1,943) are marked in red, and down-regulated genes (FDR < 0.05; log2 fold change < 0, n = 1,716) are marked in blue. Main up/down-regulated genes (-log10 FDR > 10) are labeled.



Supplementary Fig. 3.

MA-plot of the datasets of the early group and the late CCs group. Dots are genes, x-axis indicates the log2 fold change, and y-axis indicates the -log10 FDR. Up-regulated genes (FDR < 0.05; log2 fold change > 0, n = 3,833) are marked in red, and down-regulated genes (FDR < 0.05; log2 fold change < 0, n = 4,143) are marked in blue. Main up/down-regulated genes (-log10 FDR > 10) are labeled.