**Supporting information**



**Figure S1** Viability test of COC after culture in the presence or absence of FSH and the PI3K inhibitor, LY294002.(*A*) 0FSH; (*B*) 10FSH; (*C*) 0FSH 100LY; (*D*) 10FSH 100LY.

All photographs of COCs were taken at the same magnification (×2.5). Viability test was performed using trypan blue staining and only few cumulus cells were trypan blue positive, as shown in the picture (*C*).