

**Table S1.** Distribution of blastocysts according to their developmental stage in four groups of COCs matured *in vitro* at 39° C without (group C39) or with HSP70 (group H39), at 41°C for 6 hours from the 2nd to 8th hour of IVM without (group C41) or with HSP70 (group H41).

Embryostage	Day 7 blastocysts				Day 8 blastocysts				Day 9 blastocysts			
	EaB	B	ExB	HB	EaB	B	ExB	HB	EaB	B	ExB	HB
<b>C39</b>	48	106	0	0	7	147	12	6	0	70	87	22
<b>H39</b>	32	62	0	0	17	82	10	2	1	45	61	15
<b>C41</b>	39	63	0	0	10	108	5	0	3	87	27	12
<b>H41</b>	60	126	0	0	12	189	17	8	3	111	96	25

*EaB: Early blastocyst; B: blastocyst; ExB Expanded blastocyst; HB: hatched blastocyst*

**Table S2.** Significant differences in gene expression between C and H groups in oocytes.

Gene name	C group	H group
<i>HSP90AA1</i>	C41	H41
<i>HSP90AA1</i>	C41	H39
<i>HSPB11</i>	C39	H39
<i>HSPB11</i>	C39	H41
<i>HSPB11</i>	C41	H41
<i>HSPB11</i>	C41	H39
<i>SOD2</i>	C39	H39
<i>SOD2</i>	C39	H41
<i>GPX1</i>	C39	H39
<i>GPX1</i>	C39	H41
<i>GPX1</i>	C41	H41
<i>GPX1</i>	C41	H39
<i>G6PD</i>	C39	H39
<i>G6PD</i>	C41	H39
<i>BCL2</i>	C39	H39
<i>BCL2</i>	C39	H41
<i>BCL2</i>	C41	H41
<i>BCL2</i>	C41	H39

**Table S3.** Significant differences in gene expression between C and H groups in cumulus cells.

Gene name	C group	H group
<i>HSPA1A</i>	C39	H39
<i>HSPA1A</i>	C39	H41
<i>HSPA1A</i>	C41	H41
<i>HSP90AA1</i>	C39	H41
<i>GSTP1</i>	C41	H39
<i>GSTP1</i>	C41	H41
<i>HSF1</i>	C39	H41
<i>IGF1</i>	C39	H39
<i>IGF1</i>	C41	H39
<i>BCL2</i>	C39	H41
<i>BCL2</i>	C41	H41

**Table S4:** Significant differences in gene expression between C and H groups in blastocysts

<b>Gene name</b>	<b>C group</b>	<b>H group</b>
<i>HSPA1A</i>	C39	H41
	C41	H41
<i>AKR1B1</i>	C39	H39
<i>AKR1B1</i>	C39	H41
<i>AKR1B1</i>	C41	H39
<i>AKR1B1</i>	C41	H41
<i>GSTP1</i>	C39	H39
<i>GSTP1</i>	C41	H41
<i>GSTP1</i>	C41	H39
<i>IGF1</i>	C39	H39
<i>IGF1</i>	C39	H41
<i>IGF1</i>	C41	H39
<i>IGF1</i>	C41	H41
<i>ATP1A1</i>	C39	H41
<i>ATP1A1</i>	C41	H41