

**PENGARUH PENAMBAHAN HORMON FOLLTROPIN PADA MEDIUM
MATURASI TERHADAP KEMAMPUAN MATURASI OOSIT
KAMBING LOKAL *IN VITRO***

**Yanuar Achadri
06/ 195142/ PT/ 05161**

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan hormon Folltropin pada medium maturasi terhadap kemampuan maturasi oosit kambing lokal *in vitro*. Ovarium diambil dari rumah potong hewan dan dibawa ke laboratorium dalam larutan NaCl sebagai medium transport ovarium yang mengandung antibiotik pada suhu 31-34°C. Oosit diaspirasi menggunakan *syringe* 3 ml dan jarum 23G yang telah diisi 1 ml *flushing medium*. Pengamatan oosit dilakukan di bawah mikroskop stereo. Oosit dicuci 2 kali pada *Dubelco's Phosphat Basa Saline* (DPBS) dan dicuci sekali di *Tissue Culture Medium* (TCM) kemudian dimasukkan ke dalam *incubator CO₂* pada suhu 39,5°C, kelembaban 95%, dan kadar CO₂ 5% selama 24 jam. Oosit dibedakan dalam tiga kelompok berdasarkan penambahan hormon Folltropin (0 IU/ml, 50 IU/ml, dan 100 IU/ml). Data kemampuan maturasi *in vitro* dianalisis menggunakan *oneway ANOVA* dengan oosit *mature*, rusak, dan tidak *mature* sebagai faktor-faktor utama. Persentase *mature* oosit dianalisis secara deskriptif. Hasil penelitian menunjukkan oosit *immature* mempunyai sel kumulus yang rapat mengelilingi *zona pellucida* dan sedikit vesikel dalam ooplasma, sedangkan pada oosit yang *mature* tampak ekspansi sel-sel kumulus yang merenggang dan mengelilingi oosit. Persentase oosit *mature* berturut-turut adalah 73,33±6,29%, 74,35±5,73%, dan 64,72±6,58% untuk masing-masing penambahan dosis hormon Folltropin 100 IU/ml, 50 IU/ml, dan 0 IU/ml. Berdasarkan hasil penelitian dapat disimpulkan bahwa penambahan Folltropin pada medium tidak memberikan pengaruh terhadap kemampuan maturasi oosit kambing lokal *in vitro*.

(Kata kunci: Hormon Folltropin, Oosit kambing lokal, Maturasi *in vitro*, Persentase oosit *mature*)

THE EFFECT OF FOLLTROPIN HORMONE SUPPLEMENTATION INTO MATURATION MEDIUM ON THE MATURATION ABILITY OF LOCAL GOAT OOCYTES *IN VITRO*

Yanuar Achadri
06/ 195142/ PT/ 05161

ABSTRACT

The research was conducted to examine the effect of Folltropin hormone supplementation into maturation medium on the maturation ability of local goat oocytes *in vitro*. Ovaries were collected from a local slaughterhouse, transported to the laboratory in NaCl solution contained antibiotic at 31-34°C. Aspiration of the oocytes were done using 3 ml syringe with 23G needle which has filled of 1 ml flushing medium. Observing of oocytes were done under stereo microscope. Oocytes were washed twice in *Dubelco's Phosphat Basa Saline* (DPBS) and once in *Tissue Culture Medium* (TCM) then incubated into CO₂ incubator at 39,5°C, 95% humidity, and 5% CO₂ for 24 hours. Oocytes were divided into three groups based on the supplementation of Folltropin hormone (0 IU/ml, 50 IU/ ml, 100 IU/ml). Data was analyzed using *oneway ANOVA* with matured, depraved, and no matured oocytes as main factor. Percentages of matured oocytes were reported descriptively. Result of the present study showed that immature oocytes have tight cumulus cells around zona pellucida and less of vesicle in the ooplasm. The matured oocytes have cumulus cells expansions. The percentages of mature oocytes were 73.33±6.29%, 74.35±5.73%, and 64.72±6.58% for the dose of 100, 50, and 0 IU/ml, respectively. It was concluded that addition of Folltropin hormone into maturation medium of goat oocytes had no significant effect on the ability of *in vitro* maturation oocytes.

(Key words: Folltropin hormone, Goat oocytes, *In vitro* maturation, Percentage of matured oocytes)