

POTENCY LIFE TIME OF MADURESE MONOLAYER CUMULUS OOCYTE CELL BASED ON PRODUCE OF ESTROGEN HORMONE CONCENTRATION.

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ABSTRACT

The research is about Madurese cow monolayer cumulus oocyte cell culture. The aim of this research was to know that monolayer cumulus oocyte cell can growth on the third, sixth, ninth, and twelfth day incubation time period during cultured, so that we can know maximum and minimum potency life time of monolayer cumulus oocyte cell based on its produce of estrogen hormone concentration. The cell breeding was made from aspiration of Madurese cow ovarium cumulus cell then bred in TCM 199 with the addition of FCS and gentamicyn 5 μ l/ ml in the temperature 38°C, pressure 5% CO₂, and covered with mineral oil. Cell product harvested after three, six, nine, and twelve day of incubation. The highest estrogen concentration (111,11^a \pm 27,01) from cumulus cell breeding produced after six day incubation and the lowest estrogen concentration (36,00^b \pm 10,11) produced after twelve day incubation. There was significantly difference ($p < 0,01$) estrogen concentration which is produced by Madurese cow monolayer cumulus oocyte after three, six, nine, and twelve day incubation.

Keywords: cumulus oophorus, granulose cell, invitro maturation.