IDENTIFIKASI MATURTION PROMOTING FACTOR (MPF) DARI OOSIT KUMULUS KOMPLEK SAPI YANG DIMATURASI SECARA IN VITRO DENGAN METODE ELEKTROFORESIS

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ABSTRACT

This Study was a series of experiments on the *Maturation Promoting Factor* (MPF) protein fraction in the process of *in vitro* maturation for increasing the quality of oocytes in the *in vitro* embryo production. The aim of this experiment was to identify and characterize the *Maturation Promoting Factor* (MPF) protein fraction that isolated from mature oocytes of bovine ovaries from follicles with diameter 3 – 8 mm. The follicles of bovine ovaries obtained from slaughterhouse were aspired. Oocytes were lysed using sonication. Identification of *Maturation Promoting Factor* (MPF) protein fraction was performed with *Sodium Dodecyl Sulphate Polyacrilamide Gel Electrophoresis* (SDS-PAGE) process. From the result of this experiment, several protein bands have appeared. Based of the calculation using regression equation on the *protein marker* for estimating the molecular weight of *Maturation Promoting Factor* (MPF), 8 protein fractions were obtained : 169.62 kDa; 135.39 kDa; 110.30 kDa; 98.08 kDa; 43.81 kDa; 32.25 kDa; 19.57 kDa; 12.85 kDa. Protein band with 32 kDa molecular weight was identified as *Maturation Promoting Factor* (MPF) that has the important role in the follicle development.

Key words : *Maturation Promoting Factor* (MPF), oocytes, follicle, SDS-PAGE