

**The Effect of Various Serum Albumin Bovine Concentrations on In Vitro Embryonic Cultures of Mice (*Mus musculus*) on The Number of Blastocysts.**

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**ABSTRACT**

This research was aimed to know the best concentration of bovine serum albumin for increasing the number of blastocyst. Oocyte was obtained from Balb / C mice. The ova were collected and then classified into 3 groups : P1 (MEM + BSA 3%), P2 (MEM + BSA 5%), and P3 (MEM + BSA 7%). Semen was collected from the fertile male, then the motile spermatozoa were inserted into medium which has ova in it. Media containing sperm and ova stored in 5% CO<sub>2</sub> incubator. The observations were performed under an inverted microscope with 100x magnification. Embryos that developed until the blastocyst stage showed clear cytoplasm, clear plasma membrane, granular presence, and the presence of zona pellucida. Based on statistical data analysis, it shows significant difference between the highest and lowest concentration of  $p < 0.05$ , with the most significant different P1 group ( $54.00^a \pm 8,94$ ) and P3 group ( $32.00^b \pm 10,95$ ). In conclusion, the optimal BSA concentration in supporting embryonic development is BSA 3%.

**Keywords :** *in vitro* culture, blastocyst, bovine serum albumin