IDENTIFIKASI FERTILITY ASSOCIATED ANTIGEN (FAA) PADA MEMBRAN PLASMA SPERMATOZOA SAPI MENGGUNAKAN TEKNIK SODIUM DODECYL SULPHATE POLYACRILAMIDE GEL ELECTROPHORESIS (SDS-PAGE) DAN WESTERN BLOT
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ABSTRACT
Fertility Associated Antigen (FAA) was a protein which had the function to facilitate capacitation reactions in the series of acrosomal reaction on female reproductive tract, so that the fertilization rate would increase. The presence of this protein in particular could increase the fertility of bull. The aim of this study was to identify Fertility Associated Antigen (FAA) in the plasma membrane of bovine spermatozoa. This research used semen from six bulls. The Semen was obtained from Animal Teaching Farm from Faculty of Veterinary Medicine, Airlangga University. Semen was collected from six bulls consist of four limosins, Frisien Holstain and simental. Further examination was performed macroscopically (volume, odor, color, pH, and consistency) and microscopically (motility, viability, concentration). Then samples were identified using the SDS PAGE and Western blot technique for more specific result. The results from SDS PAGE showed 11 protein bands, namely: 11.49 kDa, 14.66 kDa, 24.74 kDa, 28.43 kDa, 31.07 kDa, 46.32 kDa, 51.43 kDa, 67.97 kDa, 72.72 kDa, 83.78 kDa, and 118.72 kDa. From that result here were several protein bands of proteins with molecular weights of 31.07 kDa which identified as Fertility Associated Antigen (FAA) after being tested with monoclonal antibody anti-FAA. The conclusion from this research was that Fertility Associated Antigen (FAA) could be identified on the plasma membrane of bull’s spermatozoa.

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