DETECTION PAG (PREGNANCY ASSOCIATED GLYCOPROTEIN) IN BLOOD SERUM FOR DIAGNOSIS PREGNANCY IN COW

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ABSTRACT

This study was conducted to determine the presence of PAG (pregnancy associated glycoprotein) in blood serum of cow, as one method of pregnancy diagnosis in cattle. PAG is produced by trophoblast cells and transferred to the maternal bloodstream during implantation. This research used 20 samples of cows that had been done artificial insemination (AI), then blood samples taken on days 21, 28 and 35 after AI to taken serum. A detection of PAG in blood serum by method of dot blot, blood serum diluted on dilution 1 / 800 and reacted with patent PAG antibody (PAG-C1 NB500-487) at 1/100 dilution. Then rectal palpation was done on day 90 after AI was used as a standard for the detection of pregnancy. Rectal palpation results will be compared with dot blot results to calculate validity values including specificity values, sensitivity, positive predictive numbers, negative predictive numbers and accuracy. From the analysis results obtained the highest validity value on the day 28 samples post artificial insemination (67%, 64%, 82%, 44%) 65%, and the lowest on the sample day 21 post artificial insemination of 100%, 0% , 30% and 30%, while on the 35th day the validity value was 17%, 71%, 67%, 20% and 55% respectively. The conclusions of this study were PAG detected in pregnant cows, and could be used as a diagnosis of pregnancy on day 28 after artificial insemination was performed.

Keywords: PAG (pregnancy associated glycoprotein), cow, pregnancy diagnosis, Dot Blot methods