

**CHARACTERIZATION OF ANTIBODIES RESULTING FROM INDUCTION  
OF *Pregnancy-Associated Glycoprotein* (PAG) DERIVED FROM BLOOD SERUM  
OF PREGNANT ETAWA CROSSBREED GOAT AS CANDIDATES FOR  
BIOMARKERS OF EARLY PREGNANCY TEST KIT**

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**ABSTRACT**

The aim of this study was to isolate and characterize Pregnancy-Associated Glycoprotein (PAG) derived from blood serum pregnant Etawa crossbreed goat and to prove that PAG can induce humoral immune responses. PAG was isolated from the serum of 3–4 month pregnant Etawa crossbreed goats. The results showed 12 protein bands were identified on the SDS-PAGE examination. PAG isolates with a molecular weight of 55.85 kDa. Antibodies of PAG was found were performed male New Zealand rabbits with PAG isolate. Serum extraction was carried out from the *auricular* vein. PAG antibody titers analysis using indirect ELISA. PAG can induce a humoral immune response by the formation antibodies. The highest production of PAG antibodies occurring at 7<sup>th</sup> week bleeding (0.404).

Key words: Pregnancy-Associated Glycoprotein, pregnant goat, serum, PAG antibodies.