

**PROTEIN ANALYSIS *Ascaris lumbricoides suum* USING SODIUM  
DODECYL SULPHATE POLYACRILAMIDE GEL  
ELECTROPHORESIS (SDS-PAGE) TECHNIQUE**

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**ABSTRACT**

This research was done to aim the protein analysis *Ascaris lumbricoides suum* using sodium dodecyl sulphate polyacrilamide gel electrophoresis (SDS-PAGE) technique. The result of this research can be used to early ascariasis diagnosis, especially immunological diagnosis and can be as a candidate vaccine ascariasis. *Ascaris lumbricoides suum* were isolated from pigs intestine and were incubated in PBS with temperature 37 °C for 12 hours, excretory-secretory (ES) liquid from the worms was produced in PBS. The intestine, somatic, whole worm extract (WWE) and the second-stage larvae (L<sub>2</sub>) infective crushed up to refinement and were centrifuged at 5,000 rpm for 15 minutes and 35,000 rpm for 25 minutes. The protein was analyzed using SDS-PAGE technique, that were presented in mollecular weight. The protein analysis *A. suum* showed 19 bands, as follow : 193 kDa, 135 kDa, 126 kDa, 102 kDa, 82.2 kDa, 53.7 kDa, 43.4 kDa, 37.7 kDa, 35.1 kDa, 26.4 kDa, 22.9 kDa, 19.9 kDa, 16 kDa, 12.9 kDa, 10.5 kDa, 7.9 kDa, 6.4 kDa, 3.6 kDa, and 3.1 kDa. For ES showed four bands : 22.9 kDa, 12.9 kDa, 3.6 kDa, and 3.1 kDa. The intestine showed 14 bands : 193 kDa, 135 kDa, 102 kDa, 82.2 kDa, 53.7 kDa, 35.1 kDa, 22.9 kDa, 16 kDa, 12.9 kDa, 10.5 kDa, 7.9 kDa, 6.4 kDa, 3.6 kDa, and 3.1 kDa. The somatic showed 15 bands : 193 kDa, 126 kDa, 102 kDa, 53.7 kDa, 43.4 kDa, 37.7 kDa, 26.4 kDa, 22.9 kDa, 19.9 kDa, 16 kDa, 10.5 kDa, 7.9 kDa, 6.4 kDa, 3.6 kDa, and 3.1 kDa. The whole worm extract showed 13 bands : 193 kDa, 126 kDa, 82.2 kDa, 53.7 kDa, 43.4 kDa, 37.7 kDa, 35.1 kDa, 22.9 kDa, 19.9 kDa, 10.5 kDa, 7.9 kDa, 3.6 kDa, and 3.1 kDa. The second-stage larvae infective showed seven bands : 193 kDa, 53.7 kDa, 37.7 kDa, 22.9 kDa, 12.9 kDa, 3.6 kDa, and 3.1 kDa. There were a similar bands among ES, intestine, somatic, WWE, and L<sub>2</sub> infective : 22.9 kDa, 3.6 kDa, and 3.1 kDa.

**Key words** : *Ascaris lumbricoides suum*, protein, SDS-PAGE, mollecular weight