

**THE INFLUENCE OF *Brucella abortus* LIPOPOLYSACCHARIDE  
SUBUNIT VACCINE IN ADJUVANT MONTANIDE ISA 70 ANTIBODY  
AND INTERLEUKIN-2 PRODUCTION ON SHEEPS**

**Fina Fransiska Sagala**

**ABSTRACT**

The aim of this study was to understand the influence of *Brucella abortus* Lipopolysaccharide subunit vaccine on adjuvant Montanide ISA 70 of sheep antibody and interleukin-2 production. This study used 18 male sheeps as experimental animals. This study was divided into 3 treatment groups and 6 repetitive groups. The treatment groups consist of P0 = control, P1 = 50 µg/ml LPS *Brucella abortus* on adjuvant Montanide ISA 70 and P2 = 100 µg/ml LPS *Brucella abortus* on adjuvant Montanide ISA 70. Observation are scheduled on the 2<sup>nd</sup> week and 4<sup>th</sup> week after vaccination. This study was analyzed using ANOVA Repeated Measures, continued by Least Significant Diference. The result of this study shows the giving of *Brucella abortus* lipopolysaccharide subunit vaccine in adjuvant Montanide ISA 70 can affect the production of antibody and interleukin-2 on sheep. The dose difference affects antibody movement and interleukin-2 content on sheep. The dose of 100 µg/ml produce greater antibodies OD value than the dose of 50 µg/ml. The dose of 50 µg/ml produce the levels of interleukin-2 greater than the dose of 100 µg/ml. The post vaccination time on the 2<sup>nd</sup> week and 4<sup>th</sup> week doesn't affects the antibody and interleukin-2 production on sheep.

**Key words:** LPS *Brucella abortus*, Montanide ISA 70, antibody, interleukin-2, sheep