The Effect of \textit{Brucella abortus} Lipopolysaccharide Subunit Vaccine in Adjuvant Montanide ISA 70 in Sheep Antibody Titer and Levels of IFN-\(\gamma\)

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ABSTRACT

The aims of this study is to determine the effect of vaccine sub unit lipopolysaccharide \textit{Brucella abortus} in adjuvant Montanid ISA 70 in sheep antibody titer and levels of IFN-\(\gamma\) with different doses. This study used 18 sheep as experimental animals, whit 3 different treatments groups for each treatments group consist of 6 sheep. Group P0 : control, treatment group P1 : 50 \(\mu\)g / ml of LPS \textit{Brucella abortus} in adjuvant Montanide ISA 70, treatment group P2 : 100 \(\mu\)g / ml LPS \textit{Brucella abortus} in adjuvant montanide ISA 70. Observation were done at 2\textsuperscript{nd} and 4\textsuperscript{th} week post vaccination. In this study, data of antibody titer and data of IFN-\(\gamma\) level were analyzed by ANOVA Univariated test followed by Tukey test. The results showed that the sub-unit of \textit{Brucella abortus} lipopolysaccharide vaccine in adjuvant Montanide ISA 70 had an effect on antibody titer and IFN-\(\gamma\) level. Different doses have an effect on the value of antibody titers and levels of IFN-\(\gamma\). At a dose of 100 \(\mu\)g / ml showed an antibody titer higher than the 50 \(\mu\)g / ml dose. At a dose of 50 \(\mu\)g / ml showed higher IFN-\(\gamma\) values than did doses of 100 \(\mu\)g / ml. Post vaccination in the 2\textsuperscript{nd} and 4\textsuperscript{th} weeks did not have a significant effect on the antibody titer and the level of gamma interferon.

Keywords : LPS \textit{Brucella abortus}, Montanide ISA 70, Antibody Titer, IFN-\(\gamma\), Sheep