

**ASSOCIATION OF MHC II DRB3 POLYMORPHISM WITH SUBCLINICAL
MASTITIS IN LACTATING GOAT (*Capra hircus*)**

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BIOGRAPHICAL SKETCH

Irvin B. Tabin was born on August 11, 1992 in the town of Gamu, province of Isabela. He is the youngest among the four sibling and the only son of Mr. Exequiel C. Tabin and Mrs. Julia B. Tabin. He finished his elementary education at Gamu Central School in Gamu, Isabela. His secondary education was in Isabela National High School. He finished his bachelor's degree in Animal Husbandry in Cenrtal Luzon State University and in 2016 he luckily passed the Agriculturist Licensure examination in line with his bachelor's degree. He is now continuing his Doctor of Veterinary Medicine degree in Central Luzon State University and currently doing his undergraduate thesis.

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ABSTRACT

TABIN, IRVIN B., College of Veterinary Science and Medicine, Central Luzon State University, Science City of Muñoz, Nueva Ecija, **June 2019, ASSOCIATION OF MHC II DRB3 POLYMORPHISM WITH SUBCLINICAL MASTITIS IN LACTATING GOAT (*Capra hircus*)**

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The diversity of MHCII DRB3 is essential because of its function in adaptive immunity and its association with infectious diseases resistance or tolerance. This study was conducted to assess the association of polymorphism of MHCII DRB3 genes of goats in selected goat farm in Region III. A total of 45 milk samples were randomly and manually collected. The collected samples were subjected to California Mastitis Test for confirmation of subclinical mastitis. DNA was extracted from milk samples using modified Promega protocol then MHCII DRB3 gene was amplified through PCR. The amplified MHC II DRB3 PCR products were subjected to endonuclease digestion. Sca-1, a restriction enzyme that can cut fragments were analyzed using Sequence Manipulation Suite. Fragments of restriction was resolved on 2-3% agarose gel horizontal electrophoresis. UV transilluminator were used to visualized the restriction-digested gene fragments.

Based on the result of California Mastitis Test (CMT), out 45 samples 25 samples were classified under subclinical mastitis while 14 samples are negative.

In identification of MHCII DRB3 genotype, a total of 6 samples was observed to produce single cut and a total of 33 samples produced three cuts in endonuclease restriction enzyme, Sca-1.

Chi-square analysis showed no significant relation of the identified genotype to the occurrence of subclinical mastitis in goats.

Keywords: PCR; CMT; Sca-1; Genotype; MHC II DRB3

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