

## PMEL Marker Identification of Dark and Light Feather Colours in Local Canary

**Authors :** Mudawamah Mudawamah, Muhammad Z. Fadli, Gatot Ciptadi, Aulanni'am

**Abstract :** Canary breeders have spread throughout Indonesian regions for the low-middle society and become an income source for them. The interesting phenomenon of the canary market is the feather colours become one of determining factor for the price. The advantages of this research were contributed to the molecular database as a base of selection and mating for the Indonesia canary breeder. The research method was experiment with the genome obtained from canary blood isolation. The genome did the PCR amplification with PMEL marker followed by sequencing. Canaries were used 24 heads of light and dark colour feathers. Research data analyses used BioEdit and Network 4.6.0.0 software. The results showed that all samples were amplification with PMEL gene with 500 bp fragment length. In base sequence of 40 was found Cytosine(C) in the light colour canaries, while the dark colour canaries was obtained Thymine (T) in same base sequence. Sequence results had 286-415 bp fragment and 10 haplotypes. The conclusions were the PMEL gene (gene of white pigment) was likely to be used PMEL gene to detect molecular genetic variation of dark and light colour feather.

**Keywords :** canary, haplotype, PMEL, sequence

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