

**MOLECULAR IDENTIFICATION *Sarcoptes scabiei* var. *cuniculi*
CAUSES OF SCABIES IN RABBITS IN SURABAYA
AND MALANG CITY - EAST JAVA**

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ABSTRACT

Sarcoptes scabiei is a zoonotic skin-borne mite named scabies. The purpose of this study was to investigate the genetic characterization of *Sarcoptes scabiei* var. *cuniculi* from local rabbits as baseline data of genetic information. This research used scraping rabbits from Surabaya and Malang which then conducted native examination, separation of mites, and DNA extract for Polymerase Chain Reaction (PCR) process. PCR is done using the researcher's primary design, forward (5'TCT TAG GGG CTG GTA TTA GTA TG 3 ') and reverse (5'-AGT TCC TCT ACC AGT TCC AC-3'). Thermocycling is performed in an automatic thermocycler (Biorad) with hot prefix at 95 °C for 5 minutes; 35 cycles 94 °C for 1 minute, 55 °C for 1 minute, and 72 °C for 1 minute; and the final addition at 72°C for 5 minutes. The PCR results were followed by homologous sequencing and analysis. As a result, *S.scabiei* var. *cuniculi* from Surabaya and Malang rabbits can be detected with these primers whose electrophoresis result is 289bp according to the target. Both the sequencing resulted in a 99% homology rate, and varied between 93 to 98% when compared to GenBank data, China and Australia. These results indicate that between samples and data from GenBank are identical species.

Keywords: *Sarcoptes scabiei*, scabies, PCR, sequencing, homology analysis