

IDENTIFIKASI KULIT KAMBING DAN BABI MENGGUNAKAN METODE PCR-RFLP UNTUK IDENTIFIKASI BAHAN BAKU RAMBAK

INTISARI

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Bahan baku rambak dapat berasal dari berbagai jenis kulit namun konsumen tidak mengetahui dengan pasti jenis kulit yang digunakan. Deteksi jenis kulit berdasarkan pada susunan DNA merupakan metode identifikasi yang cepat dan akurat untuk mengetahui asal bahan kulit. Tujuan penelitian ini adalah mendeteksi kulit yang berasal dari spesies kambing dan babi dengan menggunakan metode PCR-RFLP sehingga dapat diketahui menggunakan kulit babi atau kulit dari jenis hewan yang lain. Sampel yang digunakan adalah kulit kambing dan babi dalam kondisi segar. Isolasi DNA menggunakan metode Sambrook. Konsentrasi dan kemurnian DNA diukur dengan spektrofotometer pada λ_{260} dan λ_{280} nm. Konfirmasi identifikasi kulit kambing dan kulit babi dilakukan dengan PCR-RFLP. Hasil amplikon didigesti dengan enzim restriksi BamHI dan BseDI. Berdasarkan hasil penelitian menunjukkan bahwa 7 sampel berhasil diisolasi dengan sempurna sehingga didapatkan pita total genom DNA, hal ini terlihat jelas dan amplifikasi dengan target gen *cytochrome b* menghasilkan produk PCR pada kambing dan babi sebesar 359 bp. Hasil digesti dengan menggunakan enzim BamHI menghasilkan panjang ukuran fragmen 359 bp pada sampel kambing serta panjang ukuran fragmen 359 bp pada sampel yang mengandung babi. Hasil digesti dengan menggunakan enzim BseDI menghasilkan panjang ukuran fragmen 277 dan 82 bp pada sampel kambing serta panjang ukuran fragmen 228 dan 131 bp pada sampel yang mengandung babi. Kesimpulan penelitian adalah metode PCR-RFLP menggunakan enzim BamHI dan BSeDI dapat digunakan untuk deteksi jenis kulit kambing dan babi.

Kata kunci : Kulit, Rambak, Gen *cytochrome b*, *Polymerase chain reaction*, dan *Restriction Fragment Length Polymorphism*

IDENTIFICATION OF GOAT AND PIG SKIN USING PCR-RFLP METHOD FOR
IDENTIFYING THE RAW MATERIAL OF *RAMBAK*

ABSTRACT

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The raw material of *rambak* came from various kinds of skins but the consumers did not know anything about the certain skin used. The detection of skin type was based on the DNA structure was the fast and accurate identification method to get to know the origin of the skin material. The purpose of the research was to detect the skin coming from goat and pig species using PCR-RFLP method so it could be discovered whether the skin used was the pig skin or skin from other types of animals. The sample used was fresh goat and pig skin. The DNA isolation uses Sambrook method. The concentration and the purity of DNA were measured by the spectrophotometer on λ_{260} and λ_{280} nm. The confirmation of goat skin and pig skin identification was conducted by PCR-RFLP. The amplicon result was digested by restriction enzyme of BamHI and BseDI. The result of the research showed that 7 samples were successfully isolated perfectly so total bands of genomic DNA was obtained. This was clearly seen from amplification with *cytochrome b* gen as the target which resulted in PCR product on goat and pig as many as 359 bp. The digestion result using BamHI enzyme obtained the length of fragment size which was 359 bp of goat sample and the length of fragment size which was 359 bp of the sample which contains pig. The digestion result using BseDI enzyme got the length of the fragment size which was 277 and 83 bp of goat sample and the length of fragment size which was 228 and 131 bp of sample which contained pig. The conclusion of the research was that the PCR-RFLP method using BamHI and BseDI enzyme could be applied to detect the goat and pig type of skin.

Keywords :Skin, *Rambak*, cytochrome b gen, Polymerase chain reaction, and Restriction Fragment Length Polymorphism.