

Analisis RAPD (*Random Amplified Polymorphic DNA*) untuk Diferensiasi *Mycobacterium tuberculosis* isolat klinik sensitif INH dan Rifampisin di Makassar

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ABSTRACT. This study aims to find out: (1) whether there is a genetic diversity on *M.tuberculosis* isolat clinic that is sensitif to INH dan rifampisin with RAPD method, and (2) the description of its polimorfism differentiation. The research samples include 5 *Mycobacterium tuberculosis* isolate that is sensitive to INH and rifampisin. The study includes DNA extraction using Wizard Genom DNA purification method, amplification using 5 primer: A-2 (5' TGCCGAGTCG 3' , 70% G+C), OPN-09 (5'TGCCGGCTTG 3', 70% G+C), N-9 (5' TGCCGGCTTG 3', 70% G+C), BG-66 (5'CGACGCTGCG 3', 80% G+C) , 80% G+C), U-19 (5' GTCAGTGCGG 3', 70% G+C), and electroforesis. The isolat genetic diversity was analysed by using *Dendro Unweighted Pair Group Method of Aritmethic* (UPGMA) : *A Dendogram Construction Utility method* from Dr. Santi Garcia-Valive/2009. The results show that there is a genetic diversity on the 5 isolate *Mycobacterium tuberculosis* that are sensitive to INH and rifampisin, amplified with 5 primer. The size of amplified DNA bands is between 200-1100bp. The genetic variation can be seen in the number of fragments, the size of fragments and the number of polimorfik bands. The polimorfik percentage of the isolate is between 66.67% - 100%, or 80.28 in average. The UPGMA analysis results in a dendogram with a group cooficient of 0 – 40% or a diversity of 60 – 100%.

Keywords: *RAPD, Mycobacterium tuberculosis, sensitive to INH and rifampisin.*