

RESEARCH NOTE

NRAMP1 POLYMORPHISM AND SUSCEPTIBILITY TO LUNG TUBERCULOSIS IN SURABAYA, INDONESIA

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Abstract. The aim of this study was to evaluate the role of three polymorphisms (D543N, TGTG deletion in 3' UTR, INT4 G/C) of *NRAMP1* to susceptibility to lung tuberculosis (TB) disease. The results showed that homozygous TGTG deletion in 3'UTR of *NRAMP1* was found more frequent in lung tuberculosis patients than in healthy nurses working in a TB ward. This 4 base deletion might cause malfunction of NRAMP1 protein so that it fails as Fe²⁺ ion transporter causing macrophage unable to eliminate *Mycobacterium tuberculosis*.

Keywords: *NRAMP1* gene polymorphism, lung tuberculosis disease, Indonesia

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