ABSTRACT

AMPLIFICATION OF GENE FORMIN BINDING PROTEIN 1-LIKE (FNBP1L) AS A PRELIMINARY STAGE TO IDENTIFY THE GENE'S MUTATION ASSOCIATED WITH THE LEVEL OF INTELLIGENCE QUOTIENT (IQ)

By

SELVIA FARAHHDINA

One of the factors that influence intelligence is genetic. The research discovery shows that the gene known as FNBP1L is significantly associated with children's intelligence. The research's aim is to perform Gene FNBP1L amplification as a preliminary stage to identify the gene's mutation associated with IQ level.

The research was conducted at SMA Al-Kautsar Bandar Lampung, Biology Molecular and Biochemistry Laboratory of Medical Faculty, and Biotechnology Laboratory of Agriculture Faculty at University of Lampung, in November 2014 - March 2015. The method of the research was based on an experiment with 69 human blood samples and a sampling method namely simple random sampling. Furthermore, total DNA isolation and amplification of FNBP1L gene were performed using the Conventional PCR TC5000. The results of PCR
amplification was carried out by using electrophoresis agarose gel and then viewed using ultraviolet light (UV).

The results showed that the Gene FNBP1L with a length of 287 bps could be amplified as a preliminary stage to identify the gene's mutation with the optimum temperature of 55°C to perform PCR amplification of the gene.

Key words: amplification, Conventional PCR, Gene FNBP1L, intelligence.