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Judul Skripsi : *Isolation and Clonning of Fragment Gene Encoding Enzym
β-Ketoacyl -ACP Sintase II (KAS II) from Oil Palm Mesocarp
(Elaeis guineensis Jacq. L)*
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ABSTRACT

Palm oil consumption tend to raise along with increasing demand for better quality. Efforts can be made of them by increasing the oleic acid content of palm oil. One of the critical enzyme in the biosynthesis of fatty acids are β-ketoacyl-ACP synthase II (KAS II), which plays a role in the conversion stage of palmitic acid into stearic acid which would then be converted into oleic acid. This study aimed to isolate and clone the gene fragment from mesokarp KAS II oil palm (E.guineensis Jacq.). Isolation of genes KAS II was preceded by isolation of total RNA from palm mesokarp followed by amplification using the Transcription Reverse Polymerase Chain Reaction (RT-PCR) method with Forward and Reverse primers KASIIC. Amplification product then inserted into cloning vector pGEM[®]-T Easy and transformed into competent bacteria E. coli XL 1 Blue. DNA fragments and then sequenced. The results has isolated and cloned the gene fragment KAS II of palm mesokarp, with a size of ± 520 bp. Analysis of DNA sequences using the BLAST program showed that the DNA fragment has a very high homology of 99% with KAS II genes of oil palm in the Genbank database.