Perbadingan kloning dan dan ekspresi gen antigen tuberkulosis 85B dengan menggunakan signal peptide original dan signal peptide AQ1 endoxilanase = Comparison of cloning and expression of tuberculosis antigen 85B gene using signal peptide original and signal peptide AQ1 endoxylanase

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Abstrak

Ekspresi gen antigen 85B perlu diketahui sebelum dijadikan kandidat vaksin tuberkulosis yang diharapkan bisa menggantikan vaksin BCG. Ekspresi tersebut bisa diketahui setelah gen antigen 85B diklona dan ditransformasikan ke dalam E. coli DH5α. Ekspresi gen diharapkan bisa lebih banyak dengan penggunaan signal peptide AQ1 endoxilanase. Gen antigen 85B yang berukuran 991 pb diklona ke dalam vektor pUC57 fragmen 2 yang berukuran sekitar 2500 pb, sehingga menghasilkan plasmid rekombinan yang berukuran sekitar 3500 pb. Hasil ekspresi dari plasmid rekombinan diuji dengan SDS-PAGE. Hasil penelitian menunjukkan gen antigen 85B berhasil diklona ke dalam vektor pUC57 fragmen 2, namun antigen tersebut belum berhasil diekspresikan.
<hr>The expression of antigen 85B gene needed to be known before the antigen is used as tuberculosis vaccine candidate that is expected to replace the BCG vaccine. The expression of antigen 85B gene could be known after the gene was cloned and transformed into E. coli DH5α. The expression of the gene was expected to increase in number with the use of AQ1 endoxylanase signal peptide. Antigen 85B gene size 991 bp was cloned into a vector pUC57 fragmen 2 with size approximately 2500 bp, resulting in a recombinant plasmid with size approximately 3500 bp. The expression results of recombinant plasmid were tested with SDS-PAGE. The results showed antigen 85B gene successfully cloned into the vector pUC57 fragment 2, but these antigens have not been successfully expressed.