

# KEMAMPUAN TUMBUH *E. COLI DH5* KOMPETEN DALAM 'MEDIUM MINIMAL' MENGANDUNG DEKSTRAN UNTUK MENGEMBANGKAN METODE SELEKSI KLON GEN DEKSTRANASE

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## ABSTRACT

*Dextranase gene cloning so far have used selection method base on halo formation arround the recombinant dex colony grown on LB – blue dextran agar plate. The difficulty of the cloning process is in the selection of dex positive clone. As an example, for obtaining dex gene it has been screened about 36.500 colonies. The reason that it was difficult to determine Dex positive clones because dextran hydrolysis by primary recombinant E. coli cells in LB - blue dextran medium was too weak. In the present research, we have designed a minimal medium contained dextran and low concentration of yeast extract to reduce difficulty and to increase accuracy and reproducibility determining of reeombinant dex E. coli.*

*In this experiment, Dex positive cloned was simulated by competent E. coli grown in medium contained dextranase. The minimal medium designed consist of dextran 1 % + yeast extract 0,01 % +  $KH_2PO_4$  0,1 % +  $MgSO_4$  0,24 % + NaCl 0,1 %+  $CaCl_2$  0,01 %. This medium have proved can distinguish between recombinant E. coli dex and other E. coli, ie. the competent E. coli can grow well in this medium which was supplied by dextranase, but without dextranase this competent E. coli did not or limited grow.*

**Keywords:** *selection of dex positive clone, minimal medium*

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