ThermoFisher SCIENTIFIC

Certificate of Analysis

MAX Efficiency® DH5α™ Competent Cells

Product No. 18258−012
Lot No. 1846351
Date of Manufacture 20Dec2016
Expiration Date 31Dec2018

Transformation Efficiency

100 µl of competent cells are transformed with 50 pg of supercoiled pUC19 plasmid DNA (non−saturating conditions). Test transformations are performed on a minimum of 3 vials per lot. Transformed cultures are plated on LB plates containing 100 µg/ml ampicillin and incubated overnight at 37°C.

Transformation efficiency must be greater than 1.0 x 10^9 cfu/µg pUC19.

Antibiotic Sensitivity

Cells must exhibit growth on LB medium plates.

Untransformed cells must show no growth on LB plates containing 100 µg/ml ampicillin, indicating the absence of any ampicillin resistance markers.

Untransformed cells must show no growth on LB plates containing 50 µg/ml kanamycin, indicating the absence of any kanamycin resistance markers.

Untransformed cells must show no growth on LB plates containing 15 µg/ml chloramphenicol, indicating the absence of any chloramphenicol resistance markers.

Untransformed cells must show no growth on LB plates containing 50 µg/ml Zeocin™, indicating the absence of any Zeocin™ resistance markers.

Untransformed cells must show no growth on LB plates containing 15 µg/ml tetracycline, indicating the absence of any tetracycline resistance markers.

Untransformed cells must show growth of no more than 5 colonies on LB plates containing 100 µg/ml streptomycin, indicating the absence of streptomycin resistance markers and a low rate of spontaneous mutation.

Growth On Minimal Media

Cells must exhibit growth on 2B minimal medium plates, indicating the absence of any auxotrophic markers.

Lac Phenotype

Untransformed cells must exhibit growth of white colonies on LB plates containing 400 µg/ml X−Gal and 1 mM IPTG, indicating a Lac− phenotype.

Gal Phenotype

Cells must exhibit growth of bright red colonies on MacConkey galactose plates, indicating a Gal^+ phenotype.

RecA Phenotype

Cells must exhibit inhibited growth on LB medium plates containing 8 µg/ml nitrofurantoin, indicating a RecA− phenotype.

Absence of Bacteriophage

To verify the absence of phage contamination, 0.5−1.0 ml of DH5α™ competent cells are added to LB top agar and poured over LB plates. After overnight incubation at 37°C, no plaques should be detected.

Results

Product meets all specifications.

This product is covered by U.S. Patent No. 4,981,797 and foreign equivalents.

For Research Use Only. Not for use in diagnostic procedures. If you have any further questions about this Certificate of Analysis, please contact Technical Services at 1−800−955−6288 (US and Canada) or 1−760−603−7200, x2 (all other countries).

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