

UPDATES FROM THE CUTTING EDGE

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The abstracts of the recent research information appeared on the Vol.3 No.10-No.12 of "AIST Today" are introduced and classified by research area. For inquiry about the full article, please contact the author directly.

Life Science & Technology

Escherichia coli Can Be Transformed by a Lipofection Method

Transformation of *Escherichia coli* is a basic technique for genetic engineering. We applied a liposome-mediated lipofection method to transform electro-competent *E.coli* cells which have little natural competence of foreign DNA with-

out electroporation treatment, and have obtained transformants with plasmids by this simple and quick treatment. This method to transform *E.coli* with cation liposome is so simple that it can be used for the routine transformation works.

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Transformation Efficiency of *E.coli* by the lipofection method

Plasmid DNA	Size	selection antibiotics	Transformation efficiency Transformants/ μ g plasmid
pHSG397	2227bp	chloramphenicol	1.0×10^5
pUC19	2686bp	ampicillin	2.0×10^5
pBR322	4361bp	ampicillin	2.3×10^4
		tetracycline	2.7×10^4
pET32a	5900bp	ampicillin	3.0×10^4