

for genome-wide screening!!

S. cerevisiae

Direct Transformation Kit *Wako*

Wako Catalog No. 296-62701 (20 tests)
292-62703 (100 tests)
290-62704 (500 tests)

- ✓ *One-step transformation by just mixing.*
- ✓ *No centrifugation or washing.*



Wako

S. cerevisiae Direct Transformation Kit *Wako*

(Wako Catalog No. 296-62701 (20 tests), 292-62703 (100 tests), 290-62704 (500 tests))

The *S. cerevisiae* Direct Transformation Kit *Wako* is specially designed for easy transformation of the budding yeast, *Saccharomyces* sp.. The *S. cerevisiae* Direct Transformation Protocol allows successful transformation simply by mixing a plasmid DNA and the kit reagents with cultured yeast cells. No complicated steps, such as centrifugation or cell washing, are required. The *S. cerevisiae* Direct Transformation Kit *Wako* is particularly well suited for high-throughput transformation of a large number of yeast strains grown in 96-well plates. Even genome-wide screening, which has been problematic, becomes possible, since the *S. cerevisiae* Direct Transformation Kit *Wako* easily transforms about 4,850 strains with gene disruption.

Features

- No centrifugation or washing steps are required.
- One-step procedure by mixing a plasmid and the kit reagents with cultured yeast cells.
- Suitable for transformation of a large number of yeast strains using 96-well plates.
- Applicable to tube protocol.
- Low-viscosity reagent enables high-throughput screening.

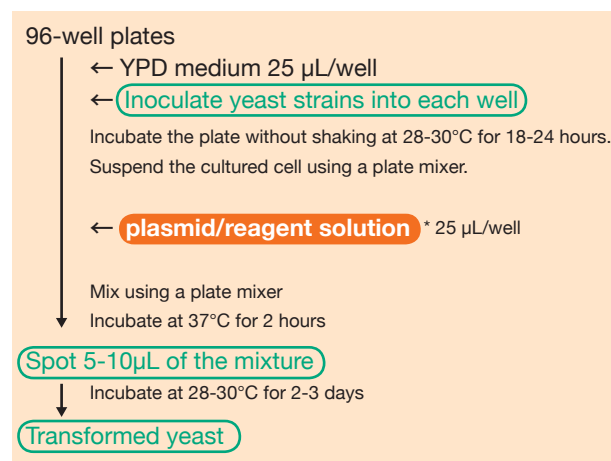
Transformation Efficiency

Transformation efficiency of BY4743 strain with pRS316 plasmid

	Transformation Efficiency (cfu/μg)
96-well plate protocol	≥ 500
Tube protocol	≥ 5,000

Protocols

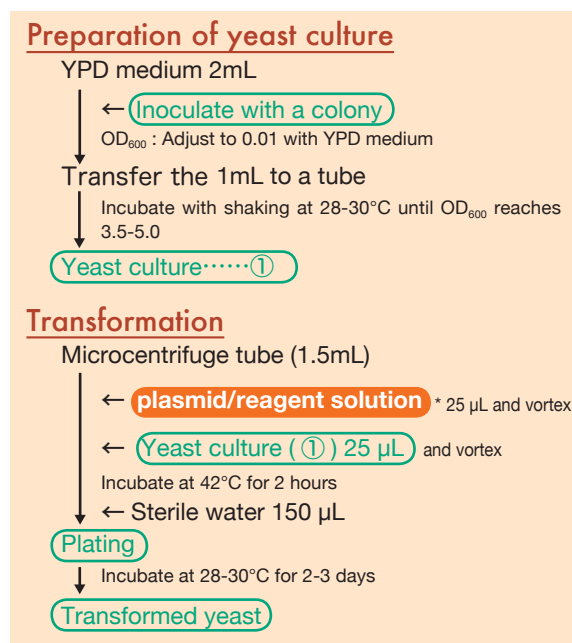
96-well plate protocol



* : plasmid/reagent solution
(per well, per tube)

Sc Transformation Reagent	20 μL
plasmid DNA	1 μg
Carrier DNA (5 μg/μL)	2 μL
Sterile water up to 25 μL	

Tube protocol

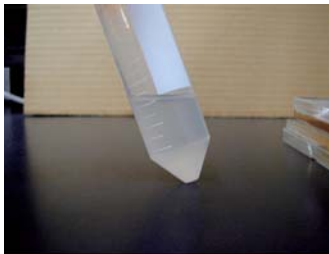




96-well plate protocol



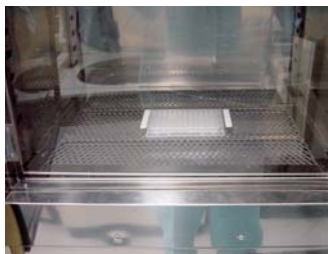
Culture yeast cells in a 96-well plate.
(YPD medium 25 μ L/well)



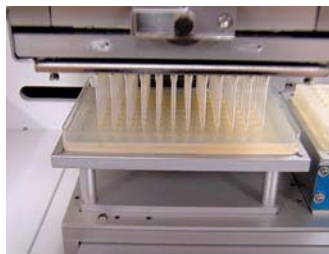
Prepare plasmid/reagent solution.



Add the plasmid/reagent solution into each well. (25 μ L/well)



After mixing, seal the plate with microplate sealing tape and incubate at 37 $^{\circ}$ C for 2 hours.



Spot 10 μ L of the mixture on an appropriate selection plate.



Incubate the selection plate at 28-30 $^{\circ}$ C for 2-3 days.

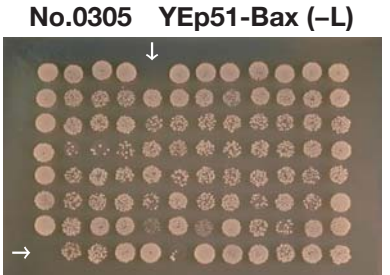
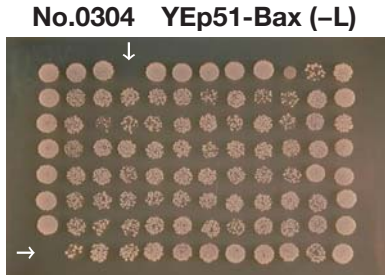
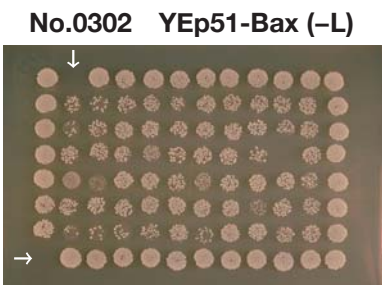
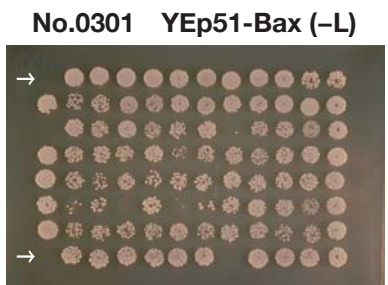
Application

YEp51-derived plasmids were introduced into a set of yeast strains with gene disruption by 96-well plate protocol. The mixtures were spotted on an appropriate selection plate and incubated.

Saccharomyces cerevisiae : Homozygous Diploid Complete Set (Invitrogen #95401.H1R3), BY4743 background

Plasmid : YEp51-Bax *LEU2*, 2 μ m ori

Selection plate : -L leucine drop-out plate



Plasmids were introduced simultaneously into the strains of more than 95 %.
 Strains that did not form colonies were affected by growth of mutants.
 The colony formation of all strains was confirmed by reintroduction of plasmids.
 ※ A few cells (marked by arrows) remain blank to identify each plate.

(Data provided by: Dr. Rinji Akada, Associate Professor at the Faculty of Engineering, Yamaguchi University, Japan)

Ideal for genome-wide screening!

S. cerevisiae Automatic Transformation System

(scheduled to be available in October, 2005)

S. cerevisiae Automatic Transformation System strongly supports genome-wide screening, such as gene function or genetic network, by transformation using a library of *S. cerevisiae* (about 4,850 strains) with disruption of known genes. This fully automatic system enables all steps, from dispensing reagents or plasmid solutions, spotting and incubation, to be performed at high-speed, using microplates.

Features

- Automatic transformation of *S. cerevisiae*
- Microplate compatible
- High speed, fully automatic
- Incubator equipped

Application

- Analysis of gene function
- Analysis of genetic network
- Analysis of biological reaction pathway



Kit Contents

	(20 tests)	(100 tests)	(500 tests)
■ Sc Transformation Reagent	500 μ L	2.5mL	12.5mL
■ Carrier DNA (5 μ g/ μ L)	50 μ L	250 μ L	1.25mL

Storage

- Keep at -20°C



Products

Description	Grade	Catalog No.	Package Size
<i>S. cerevisiae</i> Direct Transformation Kit Wako	for Genetic Research	296-62701	20 tests
		292-62703	100 tests
		290-62704	500 tests

Related Product

Description	Catalog No.	Package Size
D(+)-Glucose	047-00592	25g

- ▶ Listed products are intended for laboratory research use only.
- ▶ Please visit our online catalog to search for other Wako products from :

<http://search.wako-chem.com/>

The technology of *S. cerevisiae* Direct Transformation Kit Wako is introduced from Yamaguchi Technology Licensing Organization, Ltd.

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