The *S. pombe* Direct Transformation Kit Wako is specially designed for rapid and easy transformation of the fission yeast, *Schizosaccharomyces pombe*. This protocol allows for successful transformation simply by mixing plasmid DNA and the kit reagents with overnight yeast cell cultures without complicated competent cell preparation. The *S. pombe* Direct Transformation Kit Wako is well suited for high-throughput transformation of a large number of yeast strains grown in 96-well plates.

### Transformation Efficiency

- **250cfu/µg**

### Protocols

#### 96-well plate protocol

- 250 L of YES medium
- Inoculate yeast strains into each well
- Incubate at 28-30°C for 18-24hr. without shaking
- Suspend precipitated cells using plate mixer
- 100 L of plasmid/reagent solution
- Mix with plate mixer
- Incubate at 46°C for 2hr.
- Spotting 100 L on an appropriate selection plate
- Incubate at 28-30°C for 5-7days

#### Tube protocol

**Preparation of yeast culture**

- 2 mL of YES medium
- Inoculate yeast colonies
- OD600 : Adjust to 0.2 with YES medium
- Transfer the 1 mL of the suspenstion to 14 mL two position type tube
- Incubate at 28-30°C with shaking
- until OD600 reaches 6.0-7.0
- Yeast culture

**Transformation**

- 1.5 mL of microcentrifuge tube
- 100 L of plasmid/reagent solution
- 250 L of Yeast culture
- Mix by vortexing
- Incubate at 37°C for 2hr.
- Incubate at 28-30°C for 5-7days

Plating

- Incubate at 28-30°C for 5-7days

Transformed yeast
**Application**

~A High Efficiency Protocol~

Realize higher transformation efficiency by adding of centrifugation procedure.

**Tube protocol**

*Preparation of yeast culture*

- 2mL of YES medium
- Inoculate yeast colonies
- OD₆₀₀: Adjust to 0.2 with YES medium
- Transfer the 1mL of the suspension to 14mL two position type tube
- Incubate at 28-30°C with shaking until OD₆₀₀ reaches 6.0-7.0
- 500 x G, 5 min., RT
- Remove 800μL of supernatant
- Suspend by Vortex mixer.

**Transformation**

- 1.5mL of microcentrifuge tube
- 100μL of plasmid/reagent solution
- 25μL of Yeast culture
- Mix by vortexing
- Incubate at 37°C for 2hr.

**Plating**

- Incubate at 28-30°C for 5-7 days

**Yeast culture**

<Additional procedure to prepare the quintuple concentrated yeast culture>

**Kit Contents**

<table>
<thead>
<tr>
<th>Description</th>
<th>20 reactions</th>
<th>100 reactions</th>
<th>500 reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp Transformation Reagent</td>
<td>2.25mL</td>
<td>11.5mL</td>
<td>57mL</td>
</tr>
<tr>
<td>Carrier DNA (5mg / ml)</td>
<td>0.1mL</td>
<td>0.5mL</td>
<td>1.25mL</td>
</tr>
</tbody>
</table>

**Storage**

- Keep at -20°C

**Products**

- S. pombe Direct Transformation Kit Wako for Genetic Research

**Related Products**

- <One-step Budding Yeast Transformation> S. cerevisiae Direct Transformation Kit Wako for Genetic Research

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