OCT 18, 2020

Bacterial Transformation

Jiaxin Li¹

¹South China University of Technology

Jiaxin Li

OPEN ACCESS

DOI:
dx.doi.org/10.17504/protocols.io.bnifmcbn

Protocol Citation: Jiaxin Li
2020. Bacterial
Transformation. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.bnifmcbn>

License: This is an open
access protocol distributed
under the terms of
the [Creative Commons
Attribution License](#), which
permits unrestricted use,
distribution, and reproduction
in any medium, provided the
original author and source are
credited

Protocol status: Working
We use this protocol and it's
working

Created: Oct 16, 2020

Last Modified: Oct 18, 2020

PROTOCOL integer ID:
43303

1 Thaw a tube of DH5a Competent E. coli cells on ice for 5-10 minutes

- 2 Add 1 µl of plasmid DNA to per 100 µl cell mixture. Flick the tube 4-5 times to mix cells and DNA but do not vortex.
- 3 Place the mixture on ice for 30 minutes. Do not mix.
- 4 Heat shock at exactly 42°C for exactly 90 seconds. Immediately place on ice for 2-3 minutes. Do not mix.
- 5 Pipette 800 µl of 42°C LB liquid medium into the mixture.
- 6 Place at 37°C, 180-220 rpm for 45-60 minutes.
- 7 Centrifuge the bacterium at 3000r for 3 minutes.
- 8 Discard 300 µl supernatant and resuspend the sediment.
- 9 Spread 50-100 µl of each dilution onto a selection plate and incubate for 12 hours at 37°C.