# Electroporation Transformation into BL21 cells Protocol

ARIA

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# Electroporation transformation into BL21 cells

## Introduction

Thanks to **bacterial transformation,** which is a key step in molecular cloning, we can produce multiple copies of a recombinant DNA molecule. In **transformation**, the DNA (usually in the form of a plasmid) is introduced into a competent strain of bacteria, so that the bacteria may then replicate the sequence of interest in amounts suitable for further analysis and/or manipulation.

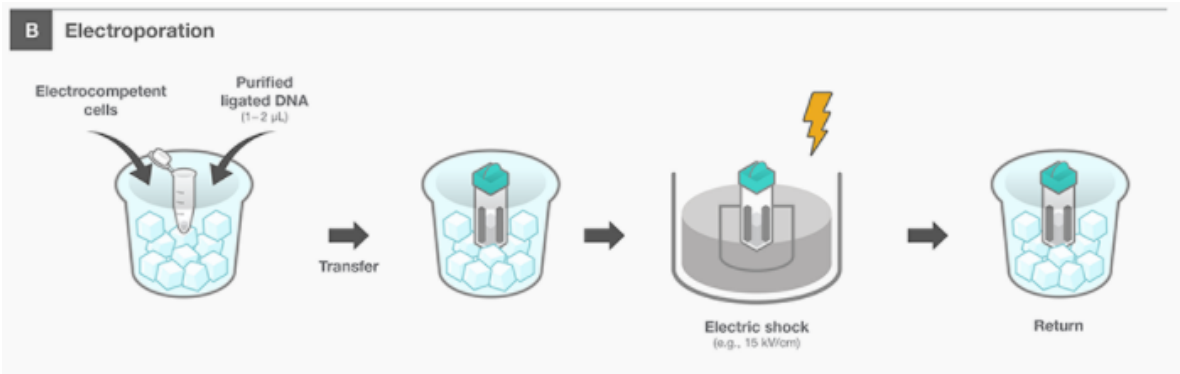
## Materials

- Electroporation cuvette 1mm
- SOC media
- Ice

## Procedure

### Transformation by electroporation

1. For each assembly, **thaw** a 25$\mu$l of the cell stock in a 1,5mL Eppendorf tube.
2. **Add** 1 $\mu$l of the assembly reaction; gently mix by flicking the tube 4-5 times. (If you are doing a co-transormation you have to add 1uL of the plasmid with Cas12a and 1uL of the plasmid with the gRNA).
3. **Put** everything on ice.
4. **Transfer** the content of the 1,5mL eppendorf to a 1mm Electoporation cuvette
5. 1800mV **shock** at electroporator
6. **Add** to cuvette **quickly 300uL SOC at RT**
7. **Transfer** all the content to a new eppendorf
8. **Incubate** at 37ºC for 1h
9. **Grow** on a plate



# Bibliography

*1. Bacterial transformation workflow–4 main steps - UK*. (n.d.). Retrieved from https://www.thermofisher.com/es/es/home/life-science/cloning/cloning-learning-center/invitrogen-school-of-molecular-biology/molecular-cloning/transformation/bacterial-transformation-workflow.html