QUICK PROTOCOL

Transforming *E. coli* with BPP Bioportide™

BPP Bioportide™ Bacterial Transformation Kit for *E. coli*

BETTER PEPTIDES PLATFORM

Cat. no. **BPP-BPort-001** No competent cells · no heat shock · no electroporation **Full protocol: bpp-peptides.com/bioportide/protocols**

BEFORE YOU START

- **Grow cells to OD_{600} 0.4 – 0.6**, early to mid log phase. Cells from a glycerol stock work as well: one 50 µl aliquot per reaction. **No competent cells needed!**
- **Warm SOC and LB plates** with your selection antibiotic to 37 °C.
- **Avoid polysaccharides** within the medium during the contact step.
- **Work under sterile conditions** within a laminar-flow hood to prevent contamination.
- **One reaction gives 1 ml** of transformed cells for plating. Plan media and plates from that figure.

10 : 1	10 ng	52 µl
BPP Bioportide™ to nucleic acid, by weight	nucleic acid per reaction	contact volume



20 min at the bench, **60 min** recovery, colonies the next morning

1. **Add 10 µl of buffer to one vial of BPP Bioportide™ and mix gently by pipetting; incubate without agitating.** — **20 min** RT
   100 ng/µl of working solution for ten reactions. Store the rest at –20 °C.
2. **Mix 1 µl of working solution with 1 µl of nucleic acid at 10 ng/µl.** — **10 min** RT
   Mix gently by pipetting, leave the 2 µl at room temperature without shaking. Thaw glycerol-stock cells at 0–4 °C while the complex forms.
3. **Add 50 µl of the cell suspension to the 2 µl of complex for transformation.** — **10 min** 0–4 °C
   No heat shock, no pulse. Mix gently by pipetting and incubate without shaking.
4. **Add 950 µl of SOC and incubate at 37 °C and shaking at 100 rpm.** — **60 min** 37 °C · 100 rpm
   Use this volume of 1 ml to spread onto LB plates.
5. **Run a dilution series and spread 100 µl per selection plate.** — **overnight** 37 °C
   Plates without antibiotic in parallel give you the transformation frequency.

For research use only. Not for use in diagnostic procedures.

Contents, storage and troubleshooting **on the back →**

KIT CONTENTS AND STORAGE

COMPONENT	STORE AT
BPP Bioportide™, lyophilised. 1 µg per vial, ten reactions. Contains HEPES and arginine as buffer material.	**–20 / –80 °C**
BPP Bioportide™ Buffer, 500 µl sterile 50 % glycerol	**–20 / –80 °C**
Working solution, once made up	**–20 °C**

Shipped at room temperature, +20 °C. The lyophilised BPP Bioportide™ is stable for at least 12 weeks at 25 °C and for more than three years at –80 °C. Store at –20 °C or –80 °C on arrival.

YOU SUPPLY

- *E. coli* cells at OD_{600} 0.4 – 0.6, or glycerol-stock aliquots of 50 µl
- Nucleic acid at 10 ng/µl: DNA or RNA, 22 nt to beyond 10 kb
- SOC medium
- LB agar plates with and without your selection antibiotic

IF THE PLATE DOES NOT LOOK RIGHT

No colonies

Run the reaction again with a control plasmid of known efficiency, such as pUC19, beside your construct. If the control grows, reagent and cells worked.

Still no colonies with the control

Check the contact medium for polysaccharides (glucose and disaccharides do not interfere), and the cells for log phase.

Tiny colonies

These can be escape colonies without a stable plasmid. Grow them in selective broth and confirm by plasmid prep with restriction mapping or by PCR.

Your strain behaves differently

Competent cells work with the same protocol. For anything else, ask the scientists who developed the BPP Bioportide™.

WHAT ONE REACTION GIVES

4.4×10^7
cfu/µg with pUC19, up to

140×
the efficiency of heat shock at 100 ng

Lot _____

Received _____

Solution made up _____

Full protocol, manual and safety data sheet
bpp-peptides.com/bioportide/protocols

FREE CONSULTATION

The scientists who developed the BPP Bioportide™ adapt the protocol to your strain.

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