

## CIAB Equipment Required but not Supplied

CIAB Step(s)	Equipment
In vitro reaction Plasmid Miniprep Restriction Digestion	<input type="checkbox"/> 5* Micropipettes - Adjustable-Volume, 2–20 µL
	<input type="checkbox"/> 5 Micropipettes - Adjustable-Volume, 20–200 µL
	<input type="checkbox"/> 5 Micropipettes, Adjustable-Volume, 200–1,000 µL
	<input type="checkbox"/> 5 Micropipette Tips, 20 µL, Box
	<input type="checkbox"/> 5 Micropipette Tips, 200, µL, Box
	<input type="checkbox"/> 5 Micropipette Tips, 1,000 µL, Box
LB Broth Preparation	<input type="checkbox"/> 1 Bottle, Autoclavable, with Cap, 250 mL
Agar Preparation	<input type="checkbox"/> 1 Bottle, Autoclavable, with Cap, 1 L
In Vitro Reaction Plasmid Miniprep	<input type="checkbox"/> 1 Centrifuge, Benchtop
Agar Prep LB Broth Prep	<input type="checkbox"/> 1 Autoclave** or Microwave Oven
Agar Prep LB Broth Prep Double Restriction Digestion	<input type="checkbox"/> 2 Liters Water, Deionized,
Competent Cell Prep	<input type="checkbox"/> 1 Erlenmeyer Flask, 125 mL
Double Restriction Digestion	<input type="checkbox"/> 1 Erlenmeyer Flask, 250 mL
Double Restriction Digestion	<input type="checkbox"/> 1 Transilluminator, Blue Light or UV
LB Broth Preparation	<input type="checkbox"/> 1 Graduated Cylinder, 100 mL
Agar Preparation	<input type="checkbox"/> 1 Graduated Cylinder, 500 mL
Agarose Gel Preparation	<input type="checkbox"/> 1 Graduated Cylinder, 1 L
Entire length of lab	<input type="checkbox"/> 100 Gloves, Disposable, Small
	<input type="checkbox"/> 100 Gloves, Disposable, Medium
	<input type="checkbox"/> 100 Gloves, Disposable, Large
Double Restriction Digestion	<input type="checkbox"/> 1 Horizontal Gel Electrophoresis Chamber with Gel Casting Tray and Comb
	<input type="checkbox"/> 1 Power Supply

In Vitro Reaction	<input type="checkbox"/> 1 Stationary Incubator
Competent Cell Prep Plasmid Miniprep	<input type="checkbox"/> 1 Shaking Incubator
In Vitro Reaction Double Restriction Digestion	<input type="checkbox"/> 1 Temperature-Controlled Dry Bath or Water Bath
Entire Experiment	<input type="checkbox"/> 5 Tube Racks
Competent Cell Preparation Preparing Reagents In Vitro Reaction Plasmid Miniprep Double Restriction Digestion	<input type="checkbox"/> 5 Wet Ice and Containers (e.g., ice bucket)
Competent Cell Preparation	<input type="checkbox"/> 1 Spectrophotometer and Associated Materials*** (cuvettes etc)
Entire experiment	<input type="checkbox"/> 5 Pens, Permanent Marking

\*Number of micropipettes depends on class size.

\*\*Microwave oven can be used in place of an autoclave.

\*\*\*CIAB Experiment can be performed without this equipment if purchasing pre-made competent *E. coli*.