

Materials List for:

# Procedure for Adaptive Laboratory Evolution of Microorganisms Using a Chemostat

Haeyoung Jeong<sup>\*1</sup>, Sang J. Lee<sup>\*2</sup>, Pil Kim<sup>3</sup>

<sup>1</sup>Super-Bacteria Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIBB)

<sup>2</sup>Microbiomics and Immunity Research Center, Korea Research Institute of Bioscience and Bioengineering (KRIBB)

<sup>3</sup>Department of Biotechnology, The Catholic University of Korea

\*These authors contributed equally

Correspondence to: Pil Kim at [kimp@catholic.ac.kr](mailto:kimp@catholic.ac.kr)

URL: <https://www.jove.com/video/54446>

DOI: [doi:10.3791/54446](https://doi.org/10.3791/54446)

## Materials

Name	Company	Catalog Number	Comments
Mini-chemostat fermentor	Biotron Inc.	-	manufactured by special order
silicon tubing	Cole-Parmer	Masterflex L/S 13	tubing size can be varied depending on the dilution rate and the size of fermentor jar.
reservoir jar	Bellco	Media storage bottle	20 L
chemicals	Sigma-Aldrich	-	reagent grade
glucose	Sigma-Aldrich	G5767	ACS reagent
NH <sub>4</sub> Cl	Sigma-Aldrich	A9434	for molecular biology, suitable for cell culture, ≥99.5%
NaCl	Sigma-Aldrich	746398	ACS reagent, ≥99%
Na <sub>2</sub> HPO <sub>4</sub> ·2H <sub>2</sub> O	Sigma-Aldrich	4272	98.5-101%
KH <sub>2</sub> PO <sub>4</sub>	Sigma-Aldrich	795488	ACS reagent, ≥99%
MgSO <sub>4</sub> ·7H <sub>2</sub> O	Sigma-Aldrich	230391	ACS reagent, ≥98%
CaCl <sub>2</sub>	Sigma-Aldrich	793639	ACS reagent, ≥96%
thiamine·HCl	Sigma-Aldrich	T4625	reagent grade, ≥99%
Na <sub>2</sub> ·succinate·6H <sub>2</sub> O	Sigma-Aldrich	S2378	ReagentPlus, ≥99%