

# Synthetic Biology: Plasmid Preparation

Technological advances in genetic engineering and artificial DNA synthesis have revolutionized biotherapeutic drug discovery. Use synthetic DNA to program a large and diverse library of plasmids to produce a product of interest. Starting with a large and diverse library of candidate plasmids is important for maximizing hits downstream. Our instruments and reagents make tedious plasmid assemblies, manipulation and cleanups short and easy. Minimize time and inputs required and take complete control of plasmid creation with Beckman Coulter Life Sciences. Increase product possibilities and shorten turnaround time with our portfolio of instruments and automation solutions.

## DESIGN 1 2 3

Genes of interest are identified and designed into oligonucleotides in silico. Plasmid backbones or fragments are selected based on downstream needs. Oligos are ordered or synthesized.

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Applicable at every point across a Synthetic Biology workflow, the **Echo Acoustic Liquid Handler** is an essential and versatile instrument for taking plasmid creation and validation in-house.

## 2 TEST

Test plasmids. Transfect into cells to analyze expression and begin product characterization.

## BUILD 1 2 3 4

Construct plasmids, transform into microbial cells, and culture hits. Sequence plasmids to ensure sequence insertion.



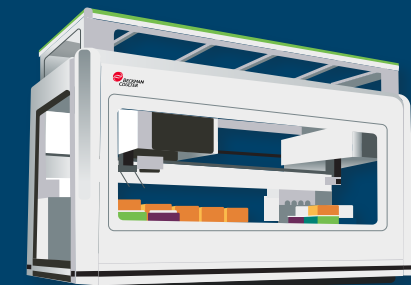
1 Echo Acoustic Liquid Handler



2 Nucleic Acid Extraction Reagents



3 EMnetik 24 Microparticle Processor



4 Biomek i-Series Automated Workstation