

PLASMID DNA PREPARATION

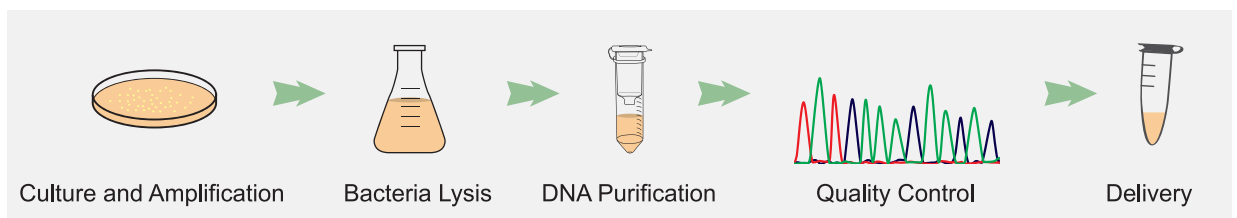


For years, Synbio Technologies has provided comprehensive plasmid DNA preparation services to our customers from research institutes and both the biotechnology and biopharmaceutical industries. We have developed, and perfected, a manufacturing pipeline designed to meet the requirements of the Good Manufacturing Protocol (GMP). These requirements guarantee both in-process controls and final product quality control, to ensure that the highest quality product will be delivered to our customers. All the plasmids we manufactured are free of animal-derived materials and can contain low levels of endotoxin (<0.005EU/μg, on request). This process is designed to meet our customers' diverse downstream applications such as transfection, antibody preparation, and vaccine and gene-therapy research.

Advantages

- **Low Endotoxin Level:** Animal-derived materials free, <0.005EU/μg, on request
- **GMP-Like Manufacturing Pipeline:** Complete and detailed manufacturing documentation
- **Strict Quality Control:** ISO9001/2015 quality management
- **Made in USA:** Efficient procedure and fast delivery

Service Procedure



Quality Control

Synbio Technologies' plasmid preparation service focuses on efficiency and overall product quality. We have strict quality control in place which is designed to increase quality, stability and to reduce batch difference to satisfy all our customers' requests.

Quality Control	Standard Range	Measurement Technique
Appearance	Clear, transparent	Visual Inspection
A260/280 Analysis	1.80~2.00	UV Spectrophotometer
Concentration	Up to 5mg/ml, default 1±0.05 mg/ml	UV Spectrophotometer
Supercoil Percentage Analysis	>95%	Density scan on agarose gel
RNA Residue Analysis	Not Detectable	Visual inspection on agarose gel
Genomic DNA Analysis	Not Detectable	Visual inspection on agarose gel
Sterility Assurance	No clone growth on LB plate > 48 h	Incubate 0.1 mg of product on LB plate for >48 h
Restriction Enzyme Analysis (optional)	As expected, no other minor band	Incubate with enzyme and analyze on agarose gel
Sequence Verification (optional)	Correct	DNA Sequencing
Endotoxin Analysis (optional)	< 0.005 EU/μg	Endotoxin Analysis Assay

Service Specifications

	Research Grade	Application Grade
Endotoxin Level	NA	<0.005 EU/μg
Quantity	0.1 mg to gram level	1 mg to gram level
Turnaround Time	Starting at 3 business days	Starting at 7 business days
Quality Control Methods	Basic quality control tests	<ul style="list-style-type: none"> •Basic quality control tests •Sterility assurance •Restriction enzyme analysis •Sequence verification
Recommended Applications	<ul style="list-style-type: none"> •Standard DNA manipulations including gene cloning, PCR template, DNA marker, DNA library. •Transient protein expression and small amount protein expression •DNA storage •Genome editing tools •Large scale genome research with use of plasmid libraries 	<ul style="list-style-type: none"> •Transfection <i>in vitro</i> or <i>in vivo</i> •Large amount protein expression •Virus Package •Cells therapeutic material •Pre-clinical trials in gene therapy or vaccination •Long-term DNA storage
Standard Delivery Package Contains	Prepared Plasmid DNA, Certificate of Analysis (COA) and QC Report	

Note: Synbio Technologies also provides services upstream of plasmid preparation such as gene synthesis and subcloning into both commercial and custom vectors. This allows us to offer a unique approach to satisfy all our customer's requests. Additionally, if you wish to provide the plasmid template, you will need to prepare over 100 ng DNA sample (diluted with ddH₂O or TE buffer), colonies (fresh) or bacteria stored in glycerol.

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