



Gene Cloning & Expression Services

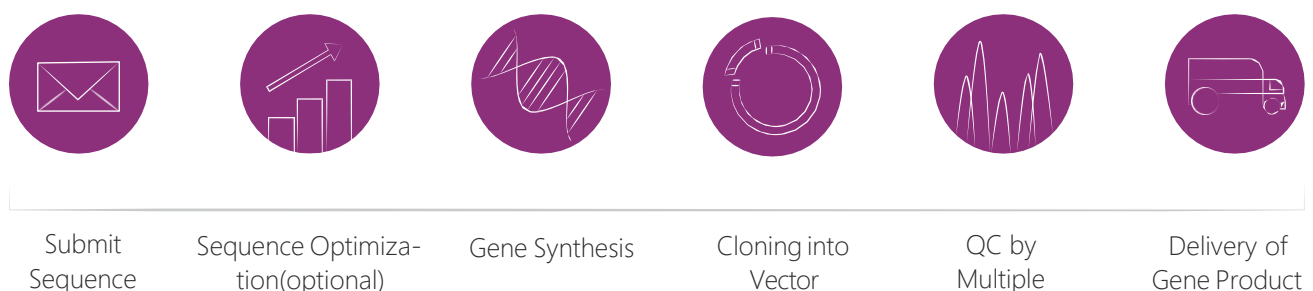
Gene Synthesis and Cloning Service

Creative Biogene provides comprehensive molecular biology services, especially gene synthesis and cloning of any sequence at any scale. **Creative Biogene** can synthesize and clone various DNA sequences, including complex, GC-rich, repeated, and long genes, using our standard vectors or the vector of your choice. In addition, our downstream services cover custom cloning, site-directed mutagenesis, plasmid preparation, and protein expression.

Key Features

Accurate	All inserts are verified by sequencing and error-free guaranteed
Advanced	Capable of synthesizing any sequences, including long, complex, repeated, GC-rich, and other sequences
Flexible	Accurately and efficiently fuse your gene into any site on any vector
Cost-effective	High-quality and high-efficiency services with competitive pricing

Workflow



Custom Cloning Service

Recombinant DNA cloning can be complicated and time-consuming owing to factors such as gene toxicity, large vector insertion, unstable DNA elements, or the presence of DNA secondary structures. **Creative Biogene** possesses advanced technologies and highly experienced staff to offer customized cloning and sub-cloning services according to the customer-preferred choice of vector, starting from your choice of templates.

Service Options

Cloning of PCR products: Amplification of specific DNA fragments using PCR and cloning into a standard vector or the vector of your choice.

Sub-cloning of vector inserts: Sub-cloning of DNA fragments into target vectors using your desirable cloning sites.

TA cloning: Cloning of PCR products into a TA cloning vector.

Cloning of synthetic genes: De novo synthesis of complete genes or DNA fragments and cloning into the vector of your choice.

Key Features

- Genes of interest can be obtained from cDNA, plasmids, or synthetic mean.
- Genes can be cloned into the vector of your choice with desired cloning sites.
- Inserts are verified by sequencing and error-free guaranteed.
- Save time and money.
- Comprehensive downstream services are available, including site-directed mutagenesis, plasmid prep, and protein expression.

Site-Directed Mutagenesis Service

Creative Biogene has extensive expertise and experience providing complete mutagenesis services, including creating single- and multiple-point mutations, deletion mutations, or insertion mutations into any target gene. In utilizing these fast and efficient mutagenesis strategies, **Creative Biogene** can achieve 100% accurate mutated DNA clones efficiently for all projects.

Key Features

Accuracy	Accurate mutant position without introducing unwanted mutations.
Unlimited Sites	Mutations can be introduced at any site.
Efficiency	Mutations can be clustered or far apart, with the same turnaround.
One-stop Solution	Comprehensive upstream and downstream services are available: de novo gene synthesis, customized vector construction, plasmid preparation, protein expression, purification, etc.

Applications

- Investigate structure-function relationships, nucleic acid-protein interactions, etc.
- Identify active sites or functional elements
- Modify regulatory sequences to alter genes
- Generate alternative splice forms
- Construct fusion, tagged proteins, or knockouts

Plasmid DNA Production Service

Creative Biogene's plasmid DNA preparation services are amenable to research labs and large biotech and pharmaceutical companies. With years of experience in plasmid DNA production, **Creative Biogene** can provide plasmids of different quality grades, scale production from micrograms to grams, and offer various service packages to obtain the purified plasmid that best fits your specific needs.

Quality Grade Options

Research Grade	Used in typical molecular biology research, including cloning, mutagenesis, sequencing, transformation, protein manufacturing, etc.
Endotoxin-free Grade	Recommended for cell transfection, antibody expression, affinity assay, protein production, animal study, etc.
GMP-Source	An intermediary level designed for early clinical phases or those using plasmids as raw materials for downstream GMP applications (i.e., lenti/AAV transfection, mRNA template, etc.)
GMP Grade	GMP plasmids may be administered directly to patients or generate viral vectors for human use, which be used for DNA vaccines, gene therapy, ex-vivo applications, etc.

Key Features

- Highly customized: production quantity ranging from micrograms to grams
- Flexible: multiple quality grade options
- Fast & cost-effective
- One-stop solution: combine with de novo gene synthesis, custom cloning, gene mutagenesis, and gene expression services

Gene Expression Service

Creative Biogene is a global-leading supplier that offers dedicated service for high-quality protein production. With the help of our highly experienced staff, we can provide one-stop service from gene synthesis, custom cloning, and gene mutagenesis to gene expression using **Creative Biogene's** unique and proprietary technical procedures.

General Protein Production Process:

Phase	Process
I: Target vector preparation	Synthesis of genes of interest and cloning into appropriate vectors
II: Small-scale expression	Pilot study for protein expression and purification Optimization of growth, expression, and purification conditions followed by protein expression analysis by SDS-PAGE, WB, etc.
III: Large-scale expression	Scale-up production according to the pilot study and provide bulk-purified

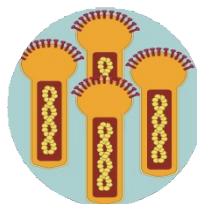
Available Expression Systems



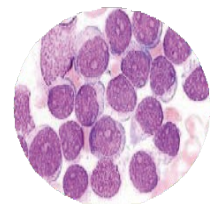
E. coli expression system



Yeast expression system



Baculovirus-Insect cell expression system



Mammalian expression system

Key Features

- Codon optimization service available
- Multiple protein expression systems
- Flexible production scale, ranging from µg to kg
- High quality and cost efficiency
- One-stop solution: add on gene synthesis and/or gene mutagenesis service if needed



Your most reliable partner in gene and protein services

Contact Us Now

Gene Cloning & Expression Services

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