

**Bioneer**  
Healthier Future for  
Humanity with  
Genomic Technology

# Gene Synthesis Service

Cost Effective, Fast Turnaround, 100% Sequence Guarantee

**Gene synthesis is the most cost effective way to enhance your research. In as little as 3 weeks, you can have your gene cloned in hand and 100% sequence guaranteed.**

## Applications

Antibody Construction / Organism Production Optimization / Gene Construction / Protein Modification

## Features and Benefits

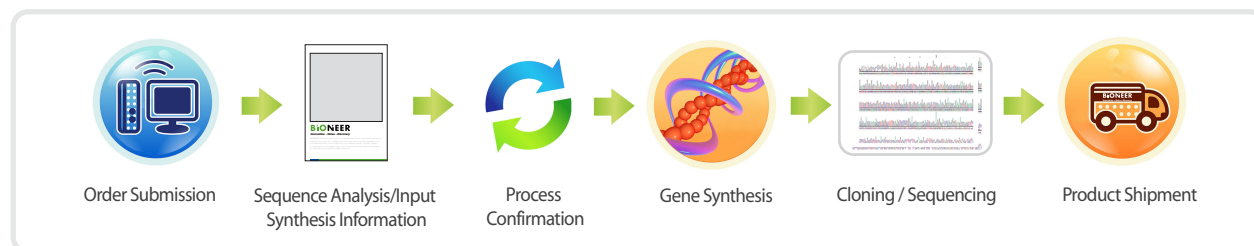
**Save Time and Money:** Bioneer's great pricing means that it can cost less to order a synthetic gene from us than to buy all the kits and reagents necessary to PCR.

**Designer Genes:** Genes optimized increase protein expression rates and enhance protein function. In addition our optimization can make previously un-clonable sections of DNA work easily.

**Quality Results – Guaranteed Sequence:** Each gene is cloned with the vector of your choice and then sequenced to give you the confidence that you want when working with your genes.

**Other Services:** Bioneer also offers Mutagenesis as well as Gene cloning and Gene to Protein services. Bioneer strives to provide the highest quality synthetic genes at a great price. Our goal is to always provide you with the best value for your research dollar.

## Schematic of Synthesis



## Gene Synthesis Service

Gene Synthesis Service Ordering Information		
Price	Please inquire from Takapouzist Co.	
Minimum Synthesis Price	As above	
Synthesis Period	1 ~ 1,500 bp	Average 7~12 working days
	1,501 ~ 3,000 bp	Average 14~21 working days
	3,001 bp ~	Inquire
Delivery Form	2 ~ 5 µg of lyophilized plasmid *Low copy plasmid is 1 ~ 2 µg	
Cloning Vector	pBHA	Basic vector
	Other	Add \$xxx & 5 working days
Subcloning Price	Please inquire from Takapouzist Co.	
Additional Service	Produce high yield of plasmid DNA (as above)	
	*Low copy vector is exemption	

\* Additional charges will apply for gene segments containing complexities such as high or low GC content, repeat sequences or homopolymeric runs. If any of your sequence is found to contain the above listed complexities, you will be contacted by our Gene Synthesis Specialist.

\* When choosing the subcloning service with a commercial vector, a vector purchase cost will be billed separately.

\* Synthesized genes will be sequenced. Only 100% sequence identity products will be shipped.

\* If it's founded as gene which is toxic or inhibit the growth in *E. coli* cell system, customer can get PCR product or plasmid DNA which is form of mutant (Apply this regulation equally even if checking during the synthesis).

\* If customer would like to order gene synthesis for protein expression & purification, customer can get the protein directly through ExiProgen™ by Bioneer

## Vector Information

When using Bioneer's Gene Synthesis Service & Cloning Service, customers can select a vector according to their purpose, which makes them easy to get appropriate plasmid without paying for commercial vector purchase.

Vector Groupation	Vector Name	Feature and Antibiotics Marker
High Copy Vector	pBHA	pUC Origin, Ampicillin
	pBHK	pUC Origin, Kanamycin
	pBHC	pUC Origin, Chloramphenicol
	pBHZ	pUC Origin, Zeocin
Low Copy Vector	pBLA	p15A Origin, Ampicillin
	pBLK	p15A Origin, Kanamycin
	pBLC	p15A Origin, Chloramphenicol
	PBLZ	p15A Origin, Zeocin
In-vitro Transcription Vector	PBIC-A	T7 & SP6 Promoter, Ampicillin
Expression Vector	pBT7-N-His	T7 Promoter, N-terminal His-tag, Ampicillin
	pBT7-C-His	T7 Promoter, C-terminal His-tag, Ampicillin
	pBT7-N-GST	T7 Promoter, N-terminal GST-tag, Ampicillin
	pBT7-C-GST	T7 Promoter, C-terminal GST-tag, Ampicillin

## Gene Cloning Service

Gene Cloning Service Ordering Information		
Accepted Materials	Plasmid, PCR product, Cultured <i>E. coli</i> cell. <b>Please note that your country's regulations may limit some options!</b>	
Price	Please inquire from Takapouzist Co. (~ 1 kb insert, ~7 kb vector) * Possible to do cloning into the vector provided from Bioneer	
Additional Costs	With cultured cells	Please inquire from Takapouzist Co.
	Insert	as above (>1 kb insert)
	Vector	7 ~ 10 kb: as above.
		10 kb ~ :inquire
Service Period	1 ~ 8 kb (vector+insert)	Average 5~10 working days
	8 ~ 11 kb (vector+insert)	Average 10~15 working days
	11 kb ~ (vector+insert)	Inquire
Additional Service	Produce high yield of plasmid DNA (Please inquire from Takapouzist Co.) *Low copy vector is exemption	
	Proceed with Gene Synthesis Service (\$ xx discount)	

\* Price & period can be increased based on the structure, quality of gene.

\* In the cloning service, if customer requests to purchase the commercial vector by Bioneer, vector purchasing cost will be charged separately.

\* If customer needs to send template DNA, please send it as plasmid DNA (over than 150~200 ng/µl, vol. 10 µl), purified PCR product (over than 50 ng/µl, vol. 10 µl).

## Mutagenesis Service

The fastest and most cost effective way to construct a mutant gene for protein structure and function research or to increase enzyme function is to use our Mutagenesis Service combined with our Gene Synthesis Service. Site-directed mutation such as point mutation as well as deletion, insertion mutation services are available. For unsurpassed quality and value pricing, partner with Bioneer today !

Mutagenesis Service Ordering Information		
Accepted Materials	Plasmid, Cultured <i>E. coli</i> cell. <b>Please note that your country's regulations may limit some options!</b>	
Price	Inner mutation	Please inquire from Takapouzist Co. (~1 kb, In less than continuous 20 bp)
	End mutation (5' or 3' end)	as above. (~1 kb, In less than continuous 10 bp)
	Add \$ xx as increasing each of mutagenesis areas (ex. Inner mutation 2 area: \$ xxx)	
Additional Costs	With cultured cells	Please inquire from Takapouzist Co.
	\$xx/500 bp (1 kb~ insert, 5 kb~:inquire)	
Service Period	~ 1 kb	Average 5~10 working days
	1 kb ~ 3 kb	Average 10~15 working days
	3 kb ~ 5 kb	Average 15~20 working days
	5 kb ~	Inquire
Additional Service	Produce high yield of plasmid DNA (Please inquire from Takapouzist Co.)	
	Proceed with Gene Synthesis Service (Please inquire from Takapouzist Co.)	

\* Price & period can be increased based on the structure, quality of gene.

\* If customer needs to send template DNA, please send it as plasmid DNA (over than 150~200 ng/μl, vol. 10 μl).

\* If customer sends the wrong sample, 50% of total amount will be charged. So please make sure to send us as checking completely by your side.

## Codon Library Mutagenesis Service

Based on a long-standing experience of gene synthesis and mutagenesis techniques, Bioneer provides Codon Library Mutagenesis Service.

With the Codon Library Mutagenesis Service, we provide gene library by codon-based mutagenesis in response to codon bias of a species of your interest. You simply select the species where your genes will be expressed and specify the location of codon(s) in the gene sequence along with amino acid name(s) that each codon will designate. Bioneer's service team conducts codon mutation according to the codon usage in the species of your interest.

Codon Library Mutagenesis Service Ordering Information		
Accepted Materials	Plasmid, Cultured <i>E. coli</i> cell	
Price	\$150.00/mutation site (~ 1 kb insert)	
	We will provide you special discount for below case.	
	Over 10 quantities: \$ xxx/mutation site. Please inquire from Takapouzist Co. Over 50 quantities: \$ xxx/mutation site. Please inquire from Takapouzist Co.	
Additional Costs	With cultured cells	Please inquire from Takapouzist Co.
	\$ xxx /500 bp (1 kb~ insert, 5 kb~:inquire)	
Service Period	~ 1 kb	Average 5~10 working days
	1 kb ~ 3 kb	Average 10~15 working days
	3 kb ~ 5 kb	Average 15~20 working days
	5 kb ~	Inquire
Additional Service	Produce high yield of plasmid DNA (\$ xxx/100 μg). Please inquire from Takapouzist Co.	
	Proceed with Gene Synthesis Service (\$ xxx discount). Please inquire from Takapouzist Co.	

\* Mutation site units: the maximum continuous seven codons (DNA: maximum 21 bp).

\* Additional charges will apply for gene segments containing complexities such as high or low GC content, repeat sequences or homopolymeric runs. If any of your sequence is found to contain the above listed complexities, you will be contacted by our Gene Synthesis Specialist.

\* When sending us the template DNA, the minimum quality requirements are as follows;

For plasmid DNA, the concentration must be 150-200 ng/μl (at least 10 μl volume).

\* If you send the wrong sample, 50% of the total cost will be charged additionally.

## AccuGeneBlock Service

AccuGeneBlock Service provides synthesis of double strand DNA fragments (less than 1 kb) in as little as 3 days. It is a brand new service offered by Bioneer, a leader in Gene Synthesis. AccuGeneBlock service provides you with your gene fragments at a great price with fast turnaround time so you can use it easily and quickly in synthetic biology research.

AccuGeneBlock Service Ordering Information		
Price	<500 bp	Please inquire from Takapouzist Co.
	501~1,000 bp	as above.
Synthesis Period	<500 bp	Average 3~5 working days
	501~1,000 bp	Average 4~6 working days
Delivery Form	500 ng ~ 1 µg of lyophilized PCR product	
Additional Service	Increased Quantity	5 µg/\$ xxx
	Codon optimization	Free-of-Charge (via E-mail ordering only)

\* AccuGeneBlock Service may not be available if the gene sequence contains high or low GC content, repetitive sequence, homo-polymeric runs, etc. In these instances please use Bioneer's Gene Synthesis Service.

\* Available for gene of <1 kb in size.

\* Double-Stranded DNA with a single 3' A overhang is provided as a default. Blunt-ended DNA is available upon request.

\* Ordering through email is required for a gene with codon optimization. Other genes may be ordered Online.

\* All of products will be delivered after checking the sequence.

### E-mail Order

Orders should be placed via email for: 1. genes larger than 3 kb; 2. AccuGeneBlock Service requiring Codon Optimization; 3. Codon Optimization, Mutagenesis, Codon Library Mutagenesis or Cloning Service.

1. Download the order form(s) from the link on Takapouzist Co. web site.

2. Complete the form and email to: [info@takapouzist.com](mailto:info@takapouzist.com)

## Contact Us

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