



GeneArt Dashboard 사용자 매뉴얼

GeneArt Services Dashboard

Ordering made easy

GeneArt의 모든 서비스를 한 페이지에서 확인 가능

- Cloned Genes & DNA Fragment 디자인 툴
- Plasmid 재주문
- GeneArt Project 주문 상태 확인 및 관리
- 총 가격 계산 가능
- 편리하게 GeneArt service 건적 요청 가능

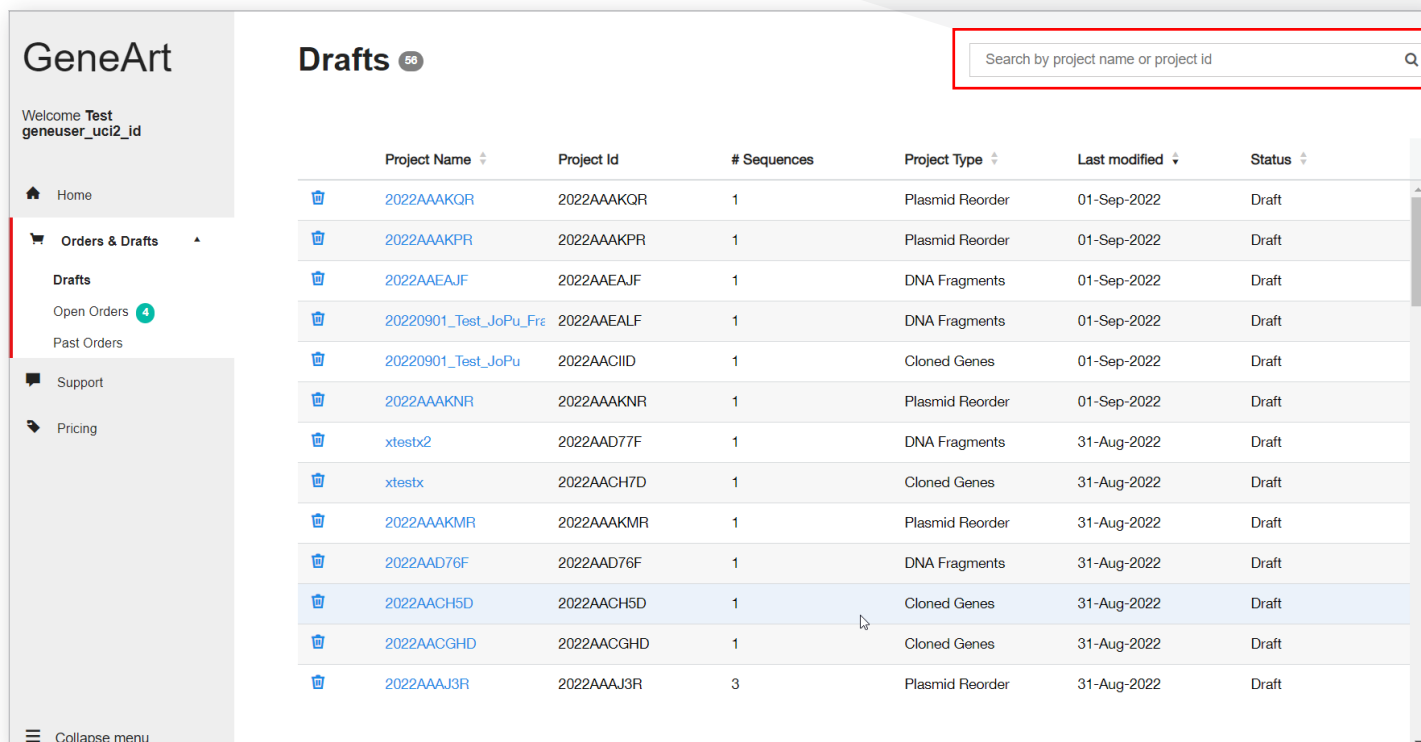
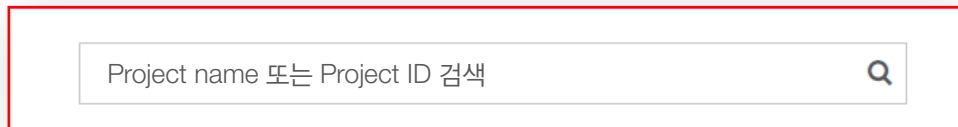
Dashboard에서 주문, 서포트, 가격 확인 탭 등 다양한 네비게이션 톨 바 활용 가능

The screenshot displays the GeneArt Services Dashboard interface. At the top left, the ThermoFisher Scientific logo is visible. A search bar contains the text '전체검색' and '카탈로그 번호, 제품명, 키워드, 애플리케이션으로 검색'. A navigation menu on the left side is highlighted with a red box and contains the following items: 'GeneArt', 'Welcome Martial Mortan', 'Home', 'Orders & Drafts', 'Support', and 'Pricing'. The main content area features a 'Limited time offer' banner: 'up to 26% off strings DNA fragments. Use code P1414605 at checkout'. Below this, the heading 'What can we offer you?' is followed by five service cards: 'Cloned Genes (100-12000 bp)', 'DNA Fragments (200-3000 bp)', 'Reorder Plasmid', 'Custom Proteins', and 'DNA Libraries'. Each card includes an icon, a title, a description, and a primary action button (e.g., 'Start New Project', 'Order Now', 'Request a Quote'). A notification at the bottom of the DNA Fragments card states 'You have an active draft.' The footer contains logos for Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, Unity Lab Services, and PPD.

Project Manager

Orders & Drafts

- 간략한 주문 내역을 각 Column으로 분류하여 확인 가능
- Project name 또는 Project ID로 검색 가능



GeneArt

Welcome Test
geneuser_uci2_id

Home

Orders & Drafts

Drafts

Open Orders 4

Past Orders

Support

Pricing

Collapse menu

Drafts 58

Search by project name or project id

Project Name	Project Id	# Sequences	Project Type	Last modified	Status
2022AAAKQR	2022AAAKQR	1	Plasmid Reorder	01-Sep-2022	Draft
2022AAAKPR	2022AAAKPR	1	Plasmid Reorder	01-Sep-2022	Draft
2022AAEAJF	2022AAEAJF	1	DNA Fragments	01-Sep-2022	Draft
20220901_Test_JoPu_Fre	2022AAEALF	1	DNA Fragments	01-Sep-2022	Draft
20220901_Test_JoPu	2022AACIID	1	Cloned Genes	01-Sep-2022	Draft
2022AAAKNR	2022AAAKNR	1	Plasmid Reorder	01-Sep-2022	Draft
xtestx2	2022AAD77F	1	DNA Fragments	31-Aug-2022	Draft
xtestx	2022AACH7D	1	Cloned Genes	31-Aug-2022	Draft
2022AAAKMR	2022AAAKMR	1	Plasmid Reorder	31-Aug-2022	Draft
2022AAD76F	2022AAD76F	1	DNA Fragments	31-Aug-2022	Draft
2022AACH5D	2022AACH5D	1	Cloned Genes	31-Aug-2022	Draft
2022AACGHD	2022AACGHD	1	Cloned Genes	31-Aug-2022	Draft
2022AAAJ3R	2022AAAJ3R	3	Plasmid Reorder	31-Aug-2022	Draft

Status tracking

Dashboard – Open Orders에서 상태 추적 가능

- 모든 order에 대한 정보 엑셀로 추출 가능
- 생성된 모든 프로젝트는 추적 가능 – Classic portal 과 String Assistant 모두 가능
- 검색 및 분류 가능
- 모든 프로젝트 상태 엑셀로 추출 가능
- 상태 업데이트 시 쉽게 확인 가능

Open Orders 2

GeneArt Search by project name or project id

Welcome Test
geneuser_uci2_id

Home

Orders & Drafts

Drafts

Open Orders 2

Past Orders

Support

Pricing

[Export all orders to Excel](#)

Project Name	Project ID	PO Number	Order Number	Last Update	Status	Est. Shipment	Action
+ 2022AAACE5D	2022AAACE5D	104711hj	5625578	09/01/2022	⚠ Delayed	09/07/2022	⋮
+ 2022AAACE4D	2022AAACE4D	74lounmk	41198765	09/01/2022	✅ In progress	10/24/2022	⋮
+ 2022AAD34F	2022AAD34F	1020410kln	74522843	09/01/2022	⚠ Delayed	10/24/2022	⋮
+ 2022AAD36F	2022AAD36F	41058mjkn	407882569	09/01/2022	⚠ Delayed	10/24/2022	⋮
+ fdsfds	2022AACFMD			08/26/2022	Production preparation	View Details	⋮

Construct Name	Product Type	Construct ID	Est. Shipment	Status
17klmnu	Cloning with plasmid pr...	22AAF4CD	09/07/2022	⚠ Delayed View Details
17klmnu	Stock agar	22AAF4DD	09/07/2022	Ligation / Transformation behind schedule
10001plmn	Cloned gene	22AAF4ED	09/06/2022	✅ In progress
10001plmn	Glycerol stock	22AAF4FD	09/06/2022	✅ In progress

- Construct list 확인 가능
- 현재 진행상황 실시간으로 확인 가능
- 지연 알림 및 사유 확인 가능
- 예상 입고일 및 지연될 경우 입고일 확인 가능



Open Orders 5

Search by project name or project id



[Export all orders to Excel](#)

Project Name	Project ID	PO Number	Order Number	Last Update	Status	Est. Shipment	Action
+ 2022AAE5D	2022AAE5D	104711hj	5625578	09/01/2022	⚠ Delayed	09/07/2022	⋮
+ 2022AAE4D	2022AAE4D	74lounmk	41198765	09/01/2022	✅ In progress	10/24/2022	⋮
+ 2022AAD34F	2022AAD34F	1020410kn	74522843	09/01/2022	⚠ Delayed	10/24/2022	⋮
+ 2022AAD36F	2022AAD36F	41058mjkn	407882569	09/01/2022	⚠ Delayed	10/24/2022	⋮
+ fdfsds	2022AACFMD			08/26/2022	Production preparation	View Details	⋮

09/01/2022	⚠ Delayed	09/07/2022	⋮
Est. Shipment	Status		
09/07/2022	⚠ Delayed	View Details	
09/07/2022			
09/06/2022	✅ In progress		
09/06/2022	✅ In progress		

Ligation / Transformation behind schedule

- Construct level로 프로젝트 확장 가능
- 지연 알림 및 사유 확인 가능
- 예상 입고일 및 지연될 경우 변경된 입고일 확인 가능

Past Orders

과거 주문이력 확인 가능

- 생성된 모든 프로젝트 추적 가능 – Classic portal & String Assistant 모두 확인 가능
- Dashboard에서 QA Document 확인 가능

GeneArt
Welcome Test
geneuser_uci2_id

Home

Orders & Drafts

- Drafts
- Open Orders
- Past Orders

Support

Pricing

Collapse menu

Past Orders 1

Search by project name or project id

[Export all orders to Excel](#)

Project Name	Project ID	PO Number	Order Number	Status	Action
JUSC00030	2021ABNNBP	4500179459	2413676	Shipped 01/19/2022	

192 item(s)	Construct Name	Product Type	Construct ID	Status
	BC2-Nb-RS-L33-1594LC	Cloned gene	21ADGR2P	Shipped
	BC2-Nb-RS-L33-1594LC	Plasmid prep	21ADGR3P	Shipped
	BC2-Nb-RS-L30-1594LC	Cloned gene	21ADGR4P	Shipped
	BC2-Nb-RS-L30-1594LC	Plasmid prep	21ADGR5P	Shipped
	BC2-Nb-RS-L7-1594LC	Cloned gene	21ADGR6P	Shipped
	BC2-Nb-RS-L7-1594LC	Plasmid prep	21ADGR7P	Shipped
	BC2-Nb-RS-L9ING1LC	Cloned gene	21ADGS2P	Shipped
	BC2-Nb-RS-L9ING1LC	Plasmid prep	21ADGS3P	Shipped

Shipped 01/19/2022

- Download QA Documents
- Load Project

Price Calculator

Total 비용 미리 확인 가능

- Cloned Genes(plasmid DNA), DNA Fragment, Plasmid 재주문을 위한 비용 확인 가능
- 제품, sequence 길이(inserted gene 길이), construct 수량 기입 후 비용 확인

GeneArt

Welcome **Martial Mortan**

- Home
- Orders & Drafts
- Support
- Pricing**

Collapse menu

Price Calculator

Use the dropdown below to first choose the product you are interested in. You will then be prompted to enter other information we may need to calculate the price of your product.

Product* **Qty***

Sequence length in bp*

Calculate

Cloned Genes Pricing

Would you like to start a new cloned genes project? [Click here.](#)

Standard Cloning Vector	Expression/Customer Vector
As low as EUR 381.92	As low as EUR 641 includes; Vector as low as €70.50

Or

€0.19 - €0.25 per bp based on complexity

** Availability is subjected to sequence assessment** Availability for reorder may vary by plasmid

DNA fragments Pricing

Would you like to start a new dna fragments project? [Click here.](#)

As low as
EUR 136

€68.00 per sequence

** Availability is subjected to sequence assessment** Availability for reorder may vary by plasmid

Plasmid Reorder Pricing

Would you like to reorder stored plasmid? [Click here.](#)

Estimated price
EUR 205

** Availability for reorder may vary by plasmid

Contact Support

GeneArt 상담 및 담당자 안내

GeneArt

Welcome **Martial Mortan**

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- Support**
- Pricing

Support

Contact Information

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Thermo Fisher Scientific 한국 Support 전화번호

📞 02-2023-0600

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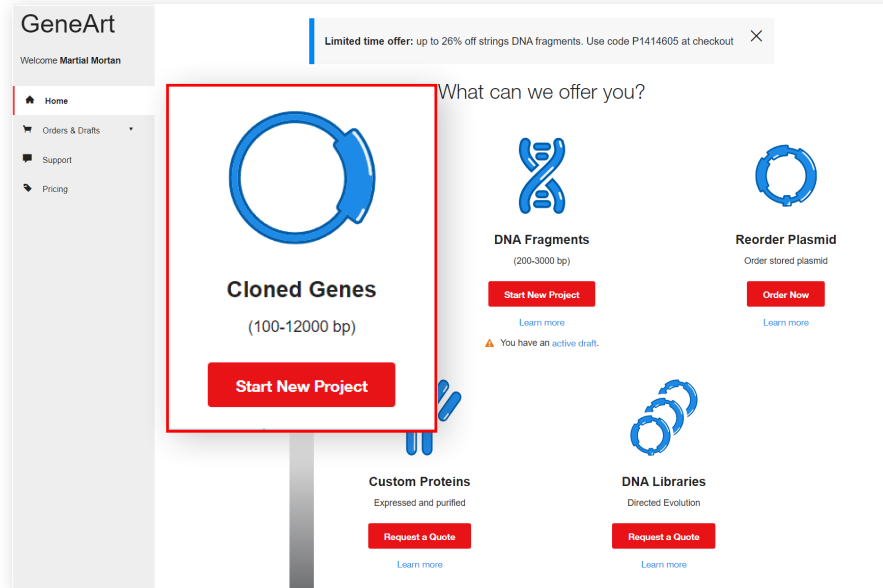


Cloned Genes & DNA Fragments

Instant Designer 사용 가이드

Cloned Genes vs. DNA Fragments in Dashboard 비교

Cloned Genes	DNA Fragments
Using Instant Designer as foundation, same UI and similar workflows	
<p>Vector offerings</p> <ul style="list-style-type: none"> • Standard production Vector pMX • Direct Cloning vectors • Cloning into standard vectors <p>Flexible cloning strategies</p> <ul style="list-style-type: none"> • 사용자가 GOI를 벡터에 삽입하고자 하는 부분을 결정할 수 있음 - 타겟 유전자가 벡터에 삽입된 최종 plasmid map 시각화 가능 <p>More add on services</p> <ul style="list-style-type: none"> • Glycerol Stock, Stock Agar Add on Services 사용 가능 <p>단, LMO 신고 필수!!</p>	<p>Functionality</p> <ul style="list-style-type: none"> • GeneArt Strings Assistant와 동일 <p>String producibility</p> <ul style="list-style-type: none"> • Sequence가 String 서비스로 생산하기에 적합하지 않을 경우 sequence 이슈가 표시됨 <p>Fix problems</p> <ul style="list-style-type: none"> • String 서비스로 생산 가능하게 하기 위해 최소한의 변경으로 Codon의 sequence를 최적화함 <p>pMX option – backdoor cloning option</p> <ul style="list-style-type: none"> • 대안으로 pMX vector에 삽입하는 형태인 cloned gene으로 delivery of sequence 선택 가능
다양한 파일 형식으로 (PDF, GenBank, Fasta) sequence 업로드 가능	




1. Enter project information (Optional) Default project name will be given if not specified

프로젝트 이름 기입

설명 기재 (optional)


2. Select sequence input method [Download Excel template](#)

Sequence 업로드 파일 형식 선택 후 진행 (FASTA, GenBank, Excel)



Upload Sequence File

FASTA, GenBank or Excel format



Manual Creation

Copy & paste your sequences directly into Instant Designer

Start

Upload

Review Status

Review /
Configure cloning

Optimization


Review &
Add to Cart

Sequence를 업로드하는 여러가지 방법

1. Enter project information (Optional) Default project name will be given if not specified


Project name Provide a meaningful description

2. Select sequence input method [Download template](#)



Upload Sequence File

Use Excel, CSV, GenBank, or FASTA to easily import your sequences



Copy and Paste

Use GeneArt Instant Designer to copy & paste your sequences

1. 매뉴얼 업로드 방법

- Sequence 복사 & 붙여넣기로 업로드
- 5' / 3' region tag 또는 Commonalities 기재 가능

GeneArt Dashboard · Cloned Genes

Cloned Genes - Instant Designer

Project: 2022AACIRD

1 2

Copy & Paste Sequences Review Status

[Back](#) [Continue](#)

Name	DNA or Protein Sequence	5' region	3' region
<input type="checkbox"/> tst45	GAGCTCGATCCTGAGACTGGTCAAGGGCGCAAGGGCATCGGACCTGCTGTGCCCTGATGATGAG...	aaggtc	
<input checked="" type="checkbox"/> test2	MTLGSALAAPQRQZQFVDWLKNTTGNHRIRAAVPPDWAVRNLGDKTGTQEYGTANDWVWVPTGRAPL...		
<input type="checkbox"/> seq	GAGCTCGATCCTGAGACTGGTCAAGGGCGCAAGGGCATCGGACCTGCTGTGCCCTGATGATGAG...		

2. 파일 형태를 이용한 Sequence 업로드 방법

- Fasta, GB format 또는 Excel template 가능
- Template 다운로드 가능

Excel template 다운로드 가능

GeneArt Dashboard · Cloned Genes

Cloned Genes - Instant Designer

Project: 2022AACIRD


1 2

Upload Sequences Review Status

[Cancel](#) [Continue](#)

[Download Excel template](#) [Upload Sequence\(s\)](#)

- For protein sequence(s), kindly ensure that stop codon is present, indicated by asterisk * symbol.
- For selecting non standard production vector (pMX), do not append the intended insertion points to your sequence(s).



Drag files to upload, or

[Choose file](#)

Excel, GenBank, FASTA

Files

Note: If customer intends to get the gene of interest delivered in a non standard production vector insertion points have to be selected later which MUST NOT be present within the sequence - not even flanking!!! Those also known as cloning sites will be appended automatically



순조로운 분석 및 optimization을 위해 sequence 검토하기

Construct의 형태는 아래 항목 선택을 포함

- Host organism
- Vector selection
- 5' and 3' commonalities
- Scale
- Add on services

Status	Sequence Name	Vector	Delivery Quantity	Type	Host Organism	Length	DNA/Protein Sequence
!	tst\$45	Standard (pMX)	5µg lyophilized plasmid...	DNA	No codon preferences	1135	GAGCTCGGATCCTGAGA...
!	test2	Standard (pMX)	5µg lyophilized plasmid...	PROTEIN	No codon preferences	134	MTLGSALAAPQRQGFVD...
✓	seq	Standard (pMX)	5µg lyophilized plasmid...	DNA	No codon preferences	1135	GAGCTCGGATCCTGAGA...

Sequence Info & Clone Configuration 에서 에러 요소 확인 가능

Sequence Info

Clone configuration

Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

입력하기 전 sequence 검토 필수

Bulk mode에서
host organism을 적용할 수 있음완료 후 분석 및 optimization을 위해
"Import & Save" 클릭

Upload Sequences 2

3 Sequence(s) [Bulk Configure](#) [Bulk Delete](#) Select the sequence(s) from the table to bulk configure or delete. [Add Sequence](#) [Import & Save](#)

	Status	Sequence Name	Vector	Delivery Quantity	Type	Host Organism	Length	DNA/Protein Sequence
<input checked="" type="checkbox"/>		tst	Standard (pMX)	5µg lyophilized plasmid...	DNA	Bacillus subtilis	1135	GAGCTCGGATCCTGAGA...
<input checked="" type="checkbox"/>		test2	Standard (pMX)	5µg lyophilized plasmid...	PROTEIN	Bacillus subtilis	134	MTLGSALAAPQRQQFVD...
<input type="checkbox"/>		seq	Standard (pMX)	5µg lyophilized plasmid...	DNA	No codon preferences	1135	GAGCTCGGATCCTGAGA...

원치 않는 sequence를 삭제할 때는
multiple sequence 체크하여 일괄 삭제 가능Host organism 선택을 위해
edit 클릭

Configure Multiple Sequences

Informational: Fields that cannot be configured in bulk are not displayed. Changes will be applied to the selected sequences.

Host organism
No codon preferences

[Cancel](#) [Save changes](#)

Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

Import 이후 검토하기 & Clone configuration

1. Vector & Plasmid scale 선택

The screenshot displays the 'Configure gene synthesis' interface. In the 'Optimize (optional)' tab, the 'Vector' is set to 'Standard (pMX)' and the 'Delivery Quantity' is '5µg lyophilized plasmid DNA, Re...'. A red box highlights the checkbox labeled 'Apply changes to all sequences'. The 'Order' tab shows a 'Sequence View' of a 1054 bp sequence with various restriction enzyme sites (SalI, KpnI, BsaI, XbaI, BglII, HindIII, XhoI, SfiI, BamHI, NcoI) and a legend for Cloning Site, Protected Region, and Unwanted Motif.

2. Construct가 여러 개일 경우, Apply changes to all sequences
체크 후 Apply & Analyze 클릭

Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

Vector 선택하기

- Standard production vector pMX
- Direct cloning vectors (dGS Express vectors)
- Standard cloning vectors
- Customer vectors

GeneArt Vector selection tool 사용하기

→ Vector selection tool에서 원하는 Vector가 있을 경우 vector의 이름을 search에 기입

Review

The screenshot displays the GeneArt Vector selection tool interface. On the left, the 'Review' section shows the gene ID '2022AAA5FD' and sequence details. The main area is titled 'Optimize (optional)' and contains the 'Configure gene synthesis' step. A dropdown menu for 'Vector' is set to 'Standard (pMA)'. Below it, a search bar contains the text 'search'. A list of custom vectors is visible, including 'pYES2', '1355442', '1363253', and 'pET3d'. The background shows a DNA sequence viewer with various restriction enzyme sites marked.



Insertion point 선택

- Standard vector들을 위해 제한효소의 predefined pairs가 표시됨
- 제공된 sequence와 적합하지 않은 pair들은 선택할 수 없도록 되어 있음

Configure gene synthesis

Select vector and delivery quantity.

[Missing a vector?](#)

Vector: **pcDNA 3.1(+)**

[View vector info](#) [Cloning guide](#)

Insertion points

- HindIII [AAGCTT] - EcoRI [GAATTC]
- HindIII [AAGCTT] - XhoI [CTCGAG]
- EcoRI [GAATTC] - XhoI [CTCGAG]
- EcoRI [GAATTC] - XbaI [TCTAGA]**
- BamHI [GGATCC] - XhoI [CTCGAG]
- NheI [GCTAGC] - XhoI [CTCGAG]

[Customize manually](#)

Configure gene synthesis

Select vector and delivery quantity.

[Missing a vector?](#)

Vector: **pcDNA 3.1(+)**

[View vector info](#) [Cloning guide](#)

Insertion points: **EcoRI [GAATTC] - XbaI [TCTAGA]**

[More info](#)

Delivery Quantity: **5µg lyophilized plasmid DNA, Re...**

[Edit 5' and 3' regions](#)

Apply changes to all sequences [?](#)

Apply & Analyze

“Apply & Analyze”를 클릭하면 cloning configuration 확인 가능

“Plasmid View”를 클릭하면 Final plasmid를 시각화한 vector map 확인 가능

Final Plasmid에 대한 정보 Download 가능

Configure gene synthesis

Select vector and delivery quantity.

[Missing a vector?](#)

Vector: **pcDNA 3.1(+)**

[View vector info](#) [Cloning guide](#)

Insertion points: **EcoRI [GAATTC] - XbaI [TCTAGA]**

[More info](#)

Delivery Quantity: **5µg lyophilized plasmid DNA, Re...**

[Edit 5' and 3' regions](#)

Apply changes to all sequences [?](#)

Apply & Analyze

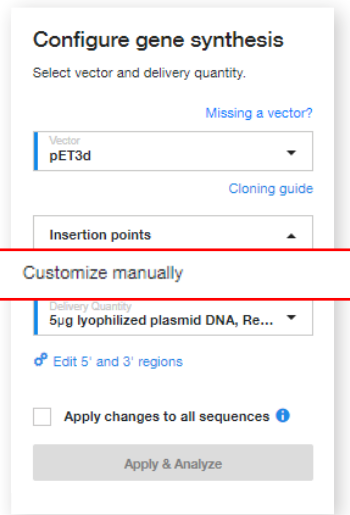
Sequence View
Plasmid View

Value ✔ Prime ✔

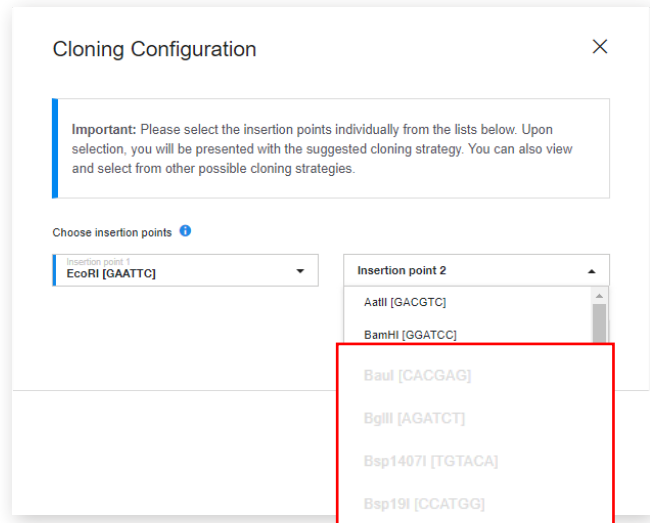
✔ **Success:** Download and review cloned construct genbank file. Sequence is optimized. Qualified for Value or Prime gene synthesis



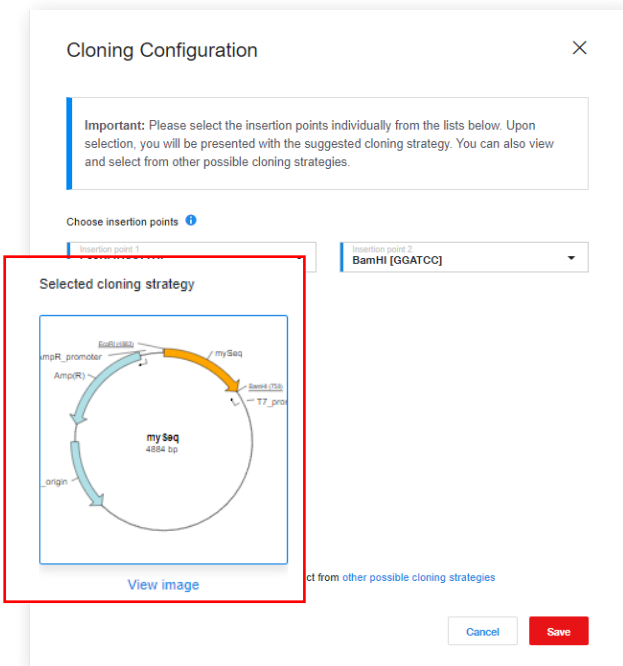
Customize manually 선택 후 Insertion point 선택 추가



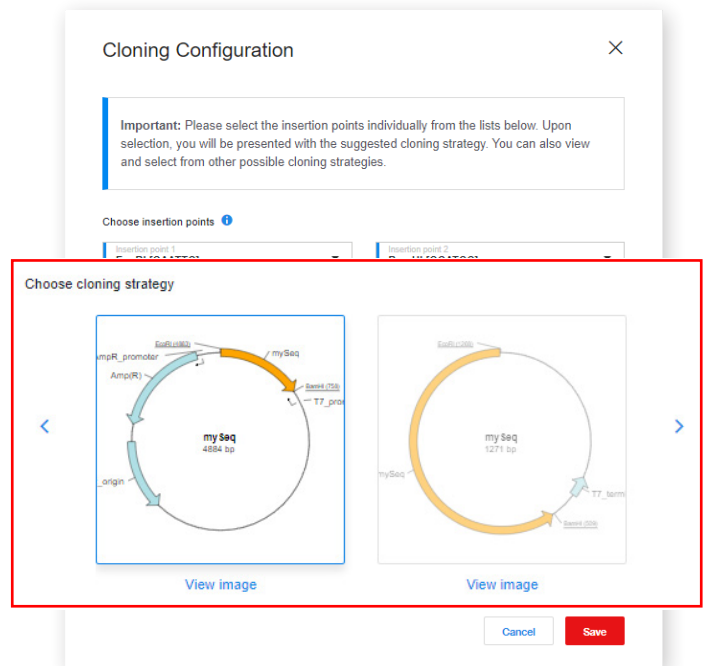
Customize manually를 선택함으로써, 수동으로 insertion point를 선택하여 추가 가능



Insertion point가 적절하지 않은 경우 선택할 수 없도록 되어 있음



Insertion point 선택 후, cloning 전략이 적용된 final plasmid map을 preview할 수 있습니다.



다른 cloning strategy을 원하시면 other possible cloning strategies를 클릭!

Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

최적화된 단백질 발현을 위해 sequence의 codon optimization 진행

Optimize (optional)

Review

2022AAA5FD

mySeq

Sequence2

Sequence1

Optimize (optional)

Optimize sequence ⓘ

Optimize your sequence for better expression or to fix potential problems.

Host Organism
No codon preferences

ORF
Define manually

ORF Start* — ORF End*

Clear Apply

Protect my cloning sites ⓘ

Protected Regions ⓘ

Motifs to Avoid ⓘ

Optimize Sequence

Order

Sequence View Plasmid View Quality Graphs Value ⓘ Prime ✓

Informational: Configure your gene synthesis and our instant validation will provide the status of product compatibility for your sequence.

SmaI
KpnI
GGTACCGTCGACTCATCATGTATCTTTTCACCTGTGCCTGATCTTTTGTTCATATCCCAGTTCACGCTTCAAGCTTCAAGCTTGGCTTGGCTTGGG
CCATGGCAGCTGAGTAGTACATAGAAAAAGTGGACACGGACTAGAAAAAAGTATAGGGTGACAAGTTCGGAGGTCGACACGGAACCGACCGAAAAACC

10 20 30 40 50 60 70 80 90 100

BsaI
ATATGGACATTTGATCCTTATAAAGAATTGGAGCTTCACTCAACTGATCTCTTTTGGCCGAGGACTTTTCCCAAATCTTGCAGAATTGGTCGAGA
TATACCTGTAAC TAGGAATATTTCTTAAACCTCGAAGTAGAGTTGACTAGAGAAAGAACGGACTCTTGAAAAAGGGTTAGAACGCTTAAACACGCTCT

100 110 120 130 140 150 160 170 180 190

XbaI
BglIII
CCACCACAGCTCTCTATGAAGAAGAAATTAGTAGGTAAGGAGCATTGCTCCCTCACCATACTGCTTACGGTTTGTAGTGAACCGTCAGATCTCTAGAAGC
GGTGGTGCAGAGAGACTTCTTCTTAATCATCCATTCCTCGTAACGAGGGGAGTGGTATGACGAATGCCAAATCACTTGGCAGTCTAGAGATCTTCG

200 210 220 230 240 250 260 270 280 290

HindIII XhoI SfiI BamHI SalI
TGGGTACAGCTGTAGCAAGCTTGTACGGCCGCTCGAGGCCGGCAAGCCGAGATCCAGACATGAAGTGTGGGGGTCGACAATACCATCGTGTGCTCCG
ACCCATGTCGACATCGTTCGAACGATGCCGGGAGCTCCGGCCGTTCCGGCCTAGGCTGTACTTCACAACCCCAAGCTGTTATGGTAGCACACGAGGC

300 310 320 330 340 350 360 370 380

NcoI
GGAAGTTCACGCACCTCCATGGCTGCTCGGCTGCACCTGCCAACTGGATGCTGCCGGGAGCGTCTGCTACGCTCCCTT
CCTTCAAGTGCCTGAAGGGTACCAGCAGCCGACGTGACGCTTGACCTACGACGCCCTCGACGAAGACGATGCAGGGGA

Legend: X
EcoRI Cloning Site
Protected Region
EcoRI Unwanted Motif

Length: 1054 Start: 1 End: 1 Selected: 0

특정 host organism 내에서 최적화된 단백질 발현을 위해 sequence의 codon optimization을 진행합니다.



Optimize sequence

Optimize your sequence for better expression or to fix potential problems.

Host Organism
Arabidopsis thaliana

ORF
Define manually

ORF Start* — ORF End*

Clear Apply

Protect my cloning sites
Protected Regions
Motifs to Avoid

Optimize Sequence

Optimization을 위해 기본 정보 선택

- Host organism
- ORF (Coding Region)

Protected Cloning Sites

Select cloning sites to be protected in your sequence. The selected sites will remain unchanged and not created within the ORF during optimization.

Sequence1

Click on cloning site to add or remove

Cloning sites in insert sequence	Protected cloning sites
KpnI (1 - 6)	
Sall (7 - 12)	Sall (7 - 12)
BsaI (195 - 200)	
BglII (284 - 289)	

Cancel Save

Protecting cloning sites

- Protected cloning sites로 지정된 부분은 optimization을 진행하더라도 변경되지 않음
- Optimization이 진행되는 동안 선택된 cloning site는 어디에도 포함되지 않음

Protected Regions

Define protected regions in sequence. Protecting regions of sequence will prevent further modification during optimization.

Sequence1

Name (Optional)	Start	End	
tag1	1	15	Cancel Apply

Cancel Save

Protected Regions

Optimization이 진행되는 동안 optimization 되기를 원치 않는 부분은 적용되지 않음

Motifs to Avoid

Define motifs to avoid in your sequence. Selected sites will be excluded during optimization.

Sequence1

Click on the cloning site to add or remove.

Standard Motifs	Standard Motifs To Avoid
AaII (CACCTGC)	Atel (AGCGCT)
Atel (AGCGGT)	Sall (GTGGAC)
AtIII (CTTAAG)	
AgeI (ACCGGT)	
Apal (GGGCC)	

Cancel Save

Motifs to Avoid

DNA 내에 존재하는 특정 제한효소 사이트를 보존해야 할 때 선택

Optimize sequence

Optimize your sequence for better expression or to fix potential problems.

Host Organism
Arabidopsis thaliana

ORF
18 - 293

Clear Apply

Protect my cloning sites
Protected Regions
Motifs to Avoid

Optimize Sequence

Optimizing sequence

Optimization 시작을 위해
Optimizing sequence 클릭



Optimization 후의 sequence는 검토 완료된 Sequence Optimization 하기

Sequence View

Optimize sequence i

Optimize your sequence for better expression or to fix potential problems.

Host Organism
Arabidopsis thaliana

ORF
18 - 293

[Protect my cloning sites i](#)

[Protected Regions i](#)

[Motifs to Avoid i](#)

Optimize Sequence

Sequence View
Plasmid View
Quality Graphs
Value i Prime ✔

i **Informational:** Configure your gene synthesis and our instant validation will provide the status of product compatibility for your sequence.

```

KpnI
GGTACCCTGAGTCATCATGTATCTTTTACCTGTGCCTGATCTTTGTTTCATATCCCAGTGTCAAGCCTCCAAGCTGTGCCTGGCTGGCTTT
CCATGCCAGTGTAGTACATAGAAAAAGTGGACACGGACTAGAAAAAAGTATAGGGTGACAAGTTCGGAGGTTTCGACACGGAAACCGACCGAAA
M Y L F H L C L I F C S Y P T V Q A S K L C L G W L Y
10 20 30 40 50 60 70 80 90

BsaI
GGGATATGGACATTGATCCTTATAAAGAATTTGGAGCTTCATCTCACTGATCTTTTTCCTTGGCTGAGGACTTTTCCCAAATCTTGCAGAATTGG
CCCTATACCTGTAACAGGAATATCTTAAACCTCGAAGTAGAGTTGACTAGAAAAAGAAACGGACTCCTGAAAAAGGGTTTGAAGCTCTTAACC
W D M D I D P Y K E F G A S S Q L I S F L P E D F F P N L A E L Y
100 110 120 130 140 150 160 170 180 190

BglIII
TCGAGACCACACAGCTCTCTAAGAAGAATTAGTAGGTAAGGAGCATTGCTCCCTCACCATACTGCTTTACGGTTTAGTGAACCGTCAGATC
AGCTCTGGTGGTTCGAGAGATACTCTTCTTAATCATCCATTCCTCGTAACGAGGGGAGTGGATGACGAAATGCCAAATCACTGGCAGTCTAG
V E T T T A L Y E E L V G K E H C S P H H T A L R F S E P S D L
200 210 220 230 240 250 260 270 280

XbaI HindIII XhoI SfiI BamHI
TCTAGAAGCTGGGTACAGCTGTAGCAAGCTTGCACGGCCCGCTCGAGGCCGGCAAGCCGGATCCAGACATGAAGTGTGGGGGTCCGACAAATACCA
AGATCTTCGACCAATGTCGACATCGTTCGAACGATGCCGGCGAGCTCCGGCCGTTCCGGCCTAGGCTGTACTTCAACAACCCAGCTGTATGAT
L *
290 300 310 320 330 340 350 360 370 380

NcoI
TCGTGTGCTCCGGGAAGTTCACGCACTTCCCATGGCTGCTCGGTGCACACTGCGAACTGGATGCTGGCGGGACGTCGTCTGCTACGTCCTCCG
AGCACACGAGGCCCTTCAAGTCGCTGAAGGTACCGACGAGCCGACGTGACGCTTACGACCGGCCCTCGACGAAGACGATGCAGGGGAGCC
Length: 1084 Start: 1 End: 1 Selected: 0
                    
```

Quality Graphs



Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

장바구니에 담기 전 최종 검토 화면

- Price Tier & Add on selection
- Prime 또는 Value 중 선택하면 장바구니 담기 가능
- Sequence가 너무 복잡하다면 Value 또는 Prime 중 선택 불가

Order

Review	Optimize (optional)	Order
Your Sequence Configuration Add sequence	Your Products ⓘ Select all Bulk add-on	Suggestions
mySeq 753 bp pcDNA 3.1(+)- Ampicillin 5µg lyophilized plasmid DNA, Research Grade	<input checked="" type="checkbox"/> Prime EUR 240.19 Add-on 19 business days <input checked="" type="checkbox"/> Value EUR 202.54 Add-on 19 business days	
Sequence2 402 bp Standard (pMX) 5µg lyophilized plasmid DNA, Research Grade	<input type="checkbox"/> Prime EUR 137.91 Add-on 8 business days <input type="checkbox"/> Value EUR 109.91 Add-on 8 business days	
Sequence1 1054 bp Standard (pMX) 5µg lyophilized plasmid DNA, Research Grade	<input type="checkbox"/> Prime EUR 243.33 Add-on 19 business days	<input type="checkbox"/> Value ⓘ Fix With Optimization

EUR 0.00

Project: 2022AAA5FD
Status: Draft

Item	Quantity
Estimated production time ⓘ	

Email will be sent when Quality Assurance files are available in Thermo Fisher Connect

ⓘ Kindly review the plasmid sequence(s) before ordering

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[Add to Cart \(0\)](#)

[Contact us](#)

Prime 또는 Value 선택 전
qualified 되지 않은 sequence는 Optimization 권장!

Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

개별 construct 또는 모든 construct에 Add-Ons 추가 가능

Order

Review	Optimize (optional)	Order
Your Sequence Configuration Add sequence	Your Products ⓘ Select all Bulk add-on	Suggestions
mySeq 753 bp pcDNA 3.1(+)- Ampicillin 5µg lyophilized plasmid DNA, Research Grade	<input type="checkbox"/> Prime EUR 240.19 Add-on 19 business days <input type="checkbox"/> Value EUR 202.54 Add-on 19 business days	
Sequence2 402 bp Standard (pMX) 5µg lyophilized plasmid DNA, Research Grade	<input type="checkbox"/> Prime EUR 137.91 Add-on 8 business days <input type="checkbox"/> Value EUR 109.91 Add-on 8 business days	
Sequence1 1054 bp Standard (pMX) 5µg lyophilized plasmid DNA, Research Grade	<input type="checkbox"/> Prime EUR 243.33 Add-on 19 business days	<input type="checkbox"/> Value ⓘ Fix With Optimization

EUR 0.00

Project: 2022AAA5FD
Status: Draft

Item	Quantity
Estimated production time ⓘ	

Email will be sent when Quality Assurance files are available in Thermo Fisher Connect

ⓘ Kindly review the plasmid sequence(s) before ordering

[Download Summary](#)

[Add to Cart \(0\)](#)

[Contact us](#)

추가 선택사항

일반적인 Add-Ons

- Glycerol Stock (new)
- Stock Agar (new)

Prime을 선택할 경우 선택 가능한 Add-Ons

- Express & Superspeed upgrade
- TSE Free
- Sanger Sequencing

Start

Upload

Review Status

Review /
Configure cloning

Optimization

Review &
Add to Cart

Order

Review	Optimize (optional)	Order
Your Sequence Configuration Add sequence	Your Products ⓘ All Prime, All Value Bulk add-on	Suggestions
mySeq 753 bp pcDNA 3.1(+) - Ampicillin 5µg lyophilized plasmid DNA, Research Grade	Prime Value EUR 240.19 Add-on <input type="checkbox"/> EUR 202.54 Add-on <input checked="" type="checkbox"/> 19 business days 19 business days	
Sequence2 402 bp Standard (pMX) 5µg lyophilized plasmid DNA, Research Grade	Prime Value EUR 137.91 Add-on <input type="checkbox"/> EUR 109.91 Add-on <input checked="" type="checkbox"/> 8 business days 8 business days	
Sequence1 1054 bp Standard (pMX) 5µg lyophilized plasmid DNA, Research Grade	Prime <input checked="" type="checkbox"/> EUR 243.33 Add-on 19 business days	Value ⓘ Fix With Optimization

Enter quote or promotion ⓘ

Cart Summary

1 item(s)
Product price 1,180,000

Cart subtotal
KRW 1,180,000

Payment Information

[Transfer control of cart](#)
[Continue shopping](#)

1. Add to Cart 이후 **견적서 출력 필수**로 진행
2. **Begin Checkout** 클릭하여 **오더 진행**하기



Order

Order number	Payment	PO reference	Order type	Total	Date	Provided by
30005266	CC - PO		Web	185.00	17-Aug-2015 01:30:39 AM	Life Technologies

Orders 페이지에서 주문 정보 확인 가능

GeneArt 유전자 합성 주문의 Order number는 8 또는 9로 시작

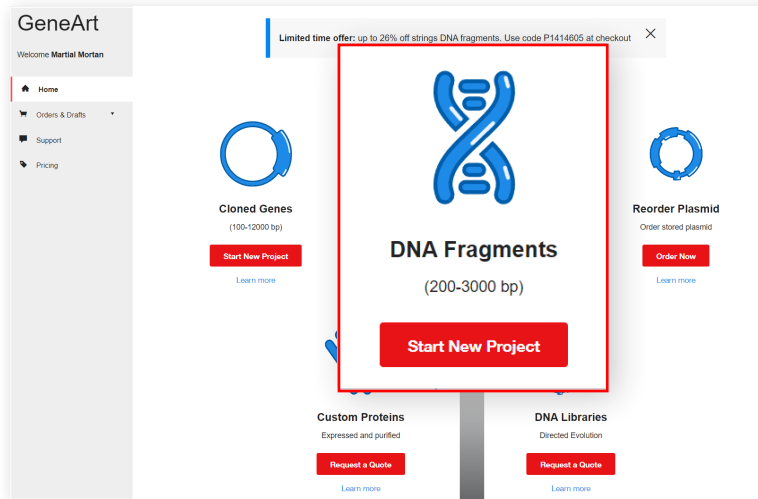
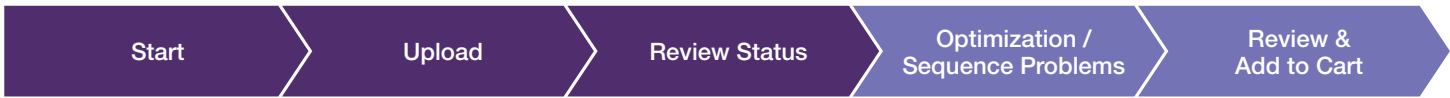
**오더 완료 시 주문에 대한 수정이 불가능합니다.
오더 진행 전 Sequence를 꼭 확인해주세요!**



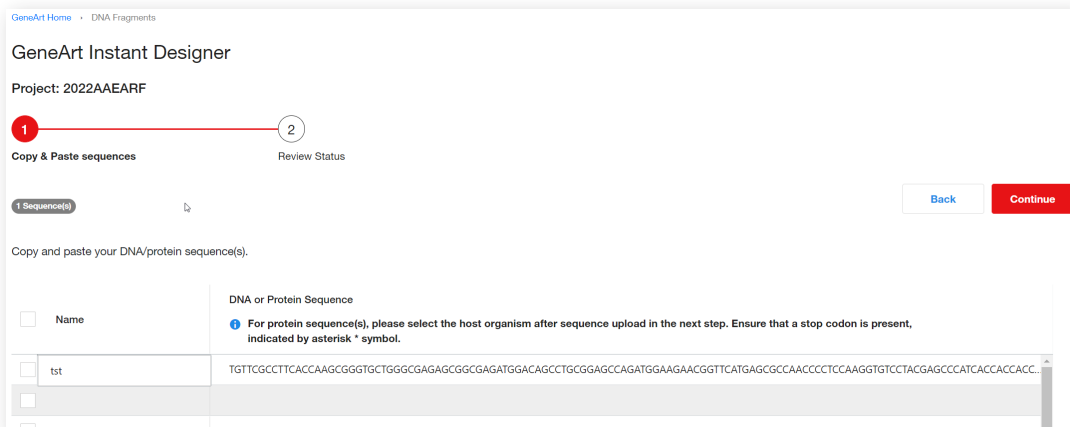
DNA Fragments

Focus on steps deviating from Cloned Genes

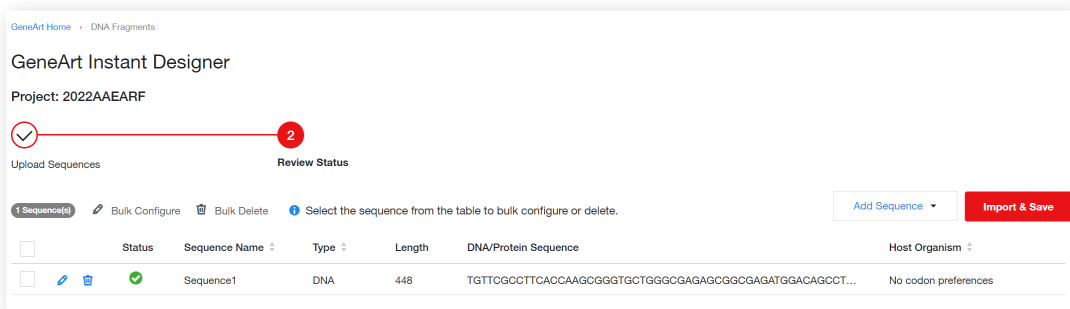
DNA Fragments How to start



Upload



Review Status



DNA Fragments 서비스는 Cloned genes 서비스와는 다르게 5' & 3' region 명시가 요구되지 않음

Start

Upload

Review Status

Optimization /
Sequence ProblemsReview &
Add to Cart

User가 Import 한 후 final review 화면 확인 가능

Optimize step은 선택사항이지만 주문 전 Optimization step으로 돌아갈 수 있음

DNA Fragment에 적합하지 않은 sequence의 경우

- pMX cloned gene 형태로 주문 가능
- 직접 수정이 가능하며 Optimize step으로 돌아가 optimization 진행 가능

Review for ordering

Optimize (optional) **Order**

Your Sequence Configuration	Your Products	Suggestions
Add Sequence test1 421 bp	<input checked="" type="checkbox"/> Select all Refer to suggestion	Fix/optimize to get string or Order as cloned gene
test2 418 bp	<div style="background-color: orange; padding: 2px;">Strings</div> <input checked="" type="checkbox"/> EUR 64.75 5 business days	
test3 830 bp	Refer to suggestion	Fix/optimize to get string or Order as cloned gene

EUR 64.75

Project: 2022AABKGF
Status: Draft

Item	Quantity
DNA fragment	1

Estimated production time ⓘ
Strings - 5 business days

Email will be sent when Quality Assurance files are available in ThermoFisher Connect

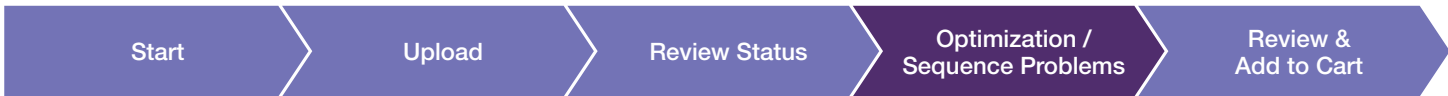
ⓘ Kindly review the sequence(s) before ordering

[Download Summary](#)

Add to Cart (1)

[Contact us](#)

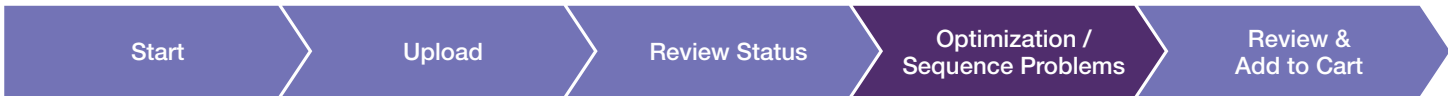
Import 한 sequence가 string service로 제작이 불가능할 경우
Fix/optimize to get string/Order as cloned gene 옵션 사용 가능



String service로 제작이 불가능한 sequence를 검토하고 문제 확인

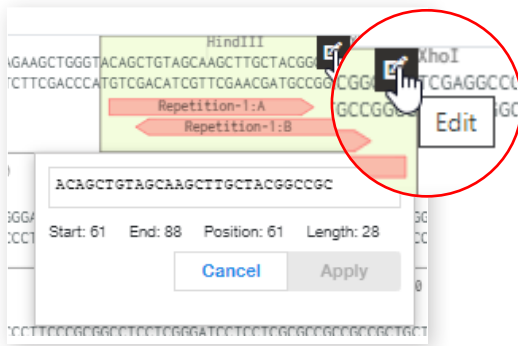
1. 에러가 있는 sequence list

2. 에러가 있는 특정 sequence의 문제 표시 및 리스트 확인 가능



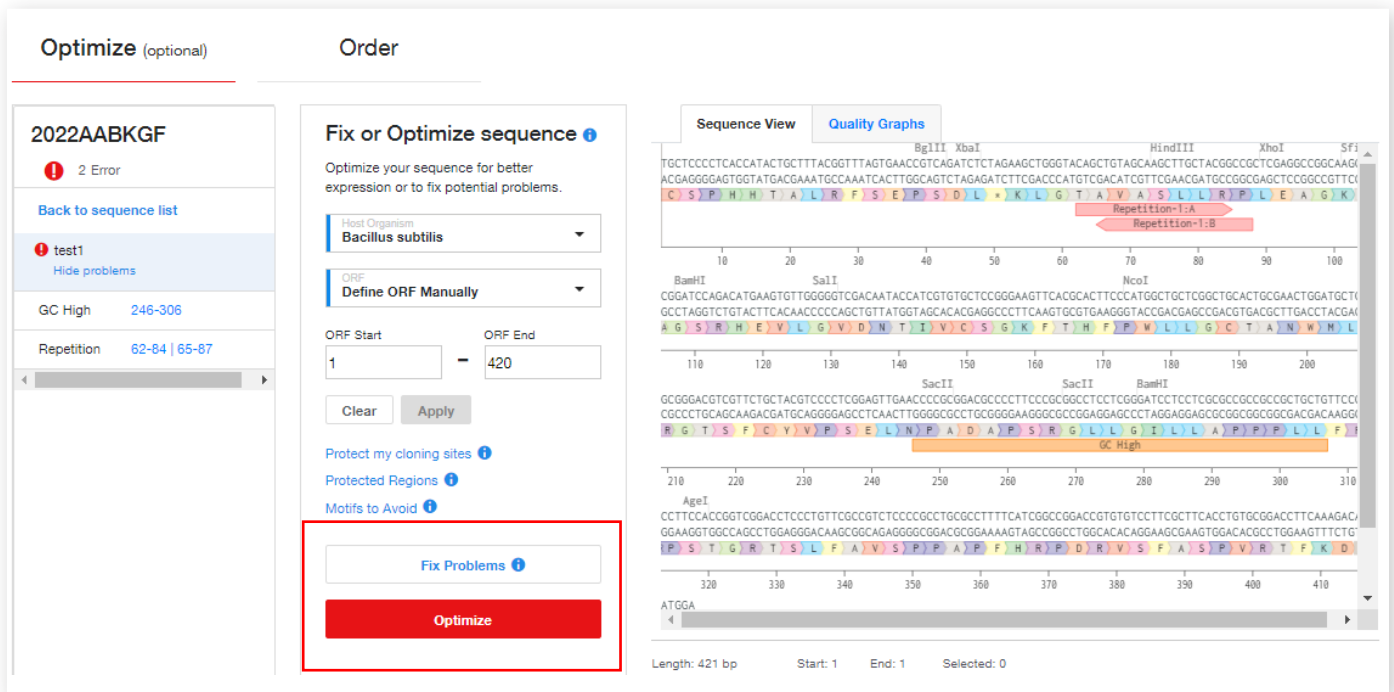
DNA Fragment 생성에 적합하지 않은 sequence를 위한 3가지 솔루션

1. 문제가 있는 sequence 부분을 직접 수정할 수 있음



2. Sequence 전체를 optimization할 수 있음

3. 'Fix Problems'는 최소한의 수정으로 sequence를 변경할 수 있음
이는 Coding Region(ORF)와 Host Organism 정보를 필요로 함



Start

Upload

Review Status

Optimization /
Sequence ProblemsReview &
Add to Cart

Order

Optimize (optional)
Order

Your Sequence Configuration	Your Products	Suggestions
Add Sequence ▾ <div style="display: flex; justify-content: space-between; align-items: center;"> test1 421 bp </div>	<input checked="" type="checkbox"/> Select all <div style="display: flex; justify-content: space-between; align-items: center;"> Strings <input checked="" type="checkbox"/> EUR 64.75 </div> 5 business days	
<div style="display: flex; justify-content: space-between; align-items: center;"> test2 418 bp </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> Strings <input checked="" type="checkbox"/> EUR 64.75 </div> 5 business days	
<div style="display: flex; justify-content: space-between; align-items: center;"> test3 830 bp </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> Cloned genes <input checked="" type="checkbox"/> EUR 191.81 </div> 19 business days	Fix/optimize to get string or Order as cloned gene

Enter quote or promotion ?

Cart Summary

1 item(s)

Product price 1,180,000

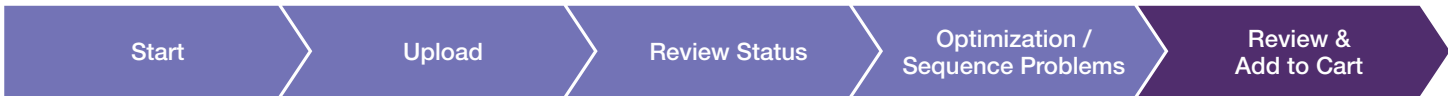
Cart subtotal

KRW 1,180,000

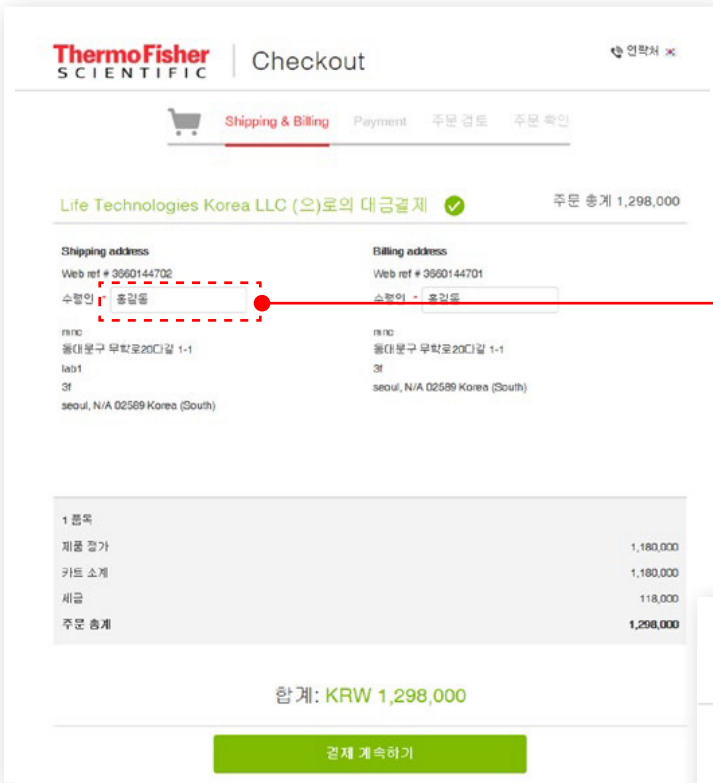
Payment Information

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[Continue shopping](#)

1. Add to Cart 이후 **견적서 출력 필수**로 진행
2. **Begin Checkout** 클릭하여 **오더 진행**하기



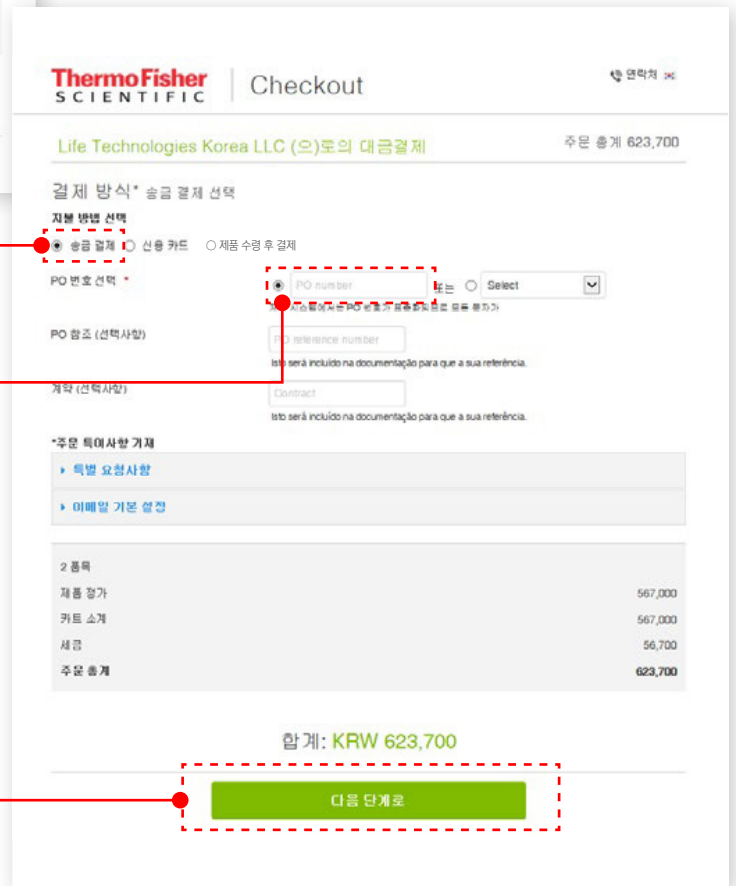
Order



수령인에는 받는 분의 성함을 꼭 기재해주세요!

송금 결제를 클릭하시더라도 제품 수령 후 결제가 진행 되니 **송금 결제로 꼭 클릭!!**

PO 번호는 주문 날짜나 주문하신 분의 성함 기재 권장



다음 단계로 이동 후 주문 제출 완료하기

Start

Upload

Review Status

Optimization /
Sequence ProblemsReview &
Add to Cart

Order

ThermoFisher SCIENTIFIC

Search All

연락처

Account

Quit Order

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주문

최근 주문

구매 카드

물거짓기 목록

맞춤 제품 및 프로젝트

주문으로 찾기:

고객 주문번호:

고객 주문번호

고객 주문번호

종류: - 선택 -

장할: 새로운 것

Your recent online orders

Order number	Payment	PO reference	Order type	Total	Date	Provided by
30005266	카드 - PO		Web	185.00	17-Aug-2015 01:30:39 AM	Life Technologies

See all orders and request invoices

Order status and management

Custom product orders & projects

GeneArt projects

Ion AmpliSeq™ Designer

Orders 페이지에서 주문 정보
확인 가능

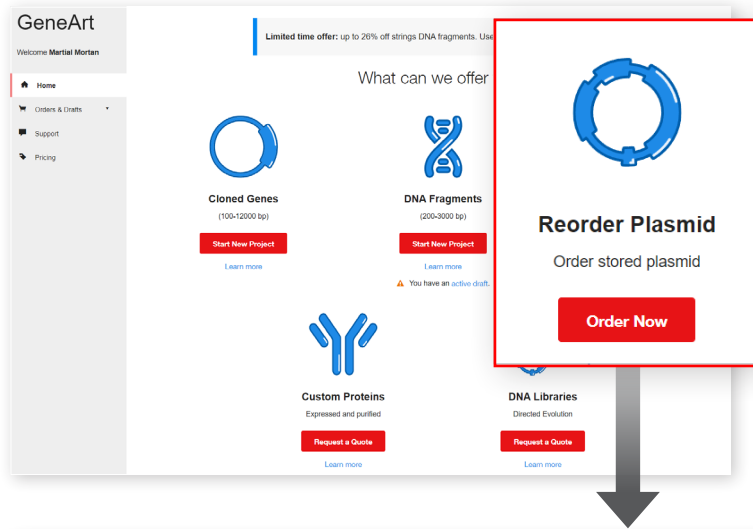
GeneArt 유전자 합성 주문의
Order number는
8 또는 9로 시작

**오더 완료 시 주문에 대한 수정이 불가능합니다.
오더 진행 전 Sequence를 꼭 확인해주세요!**

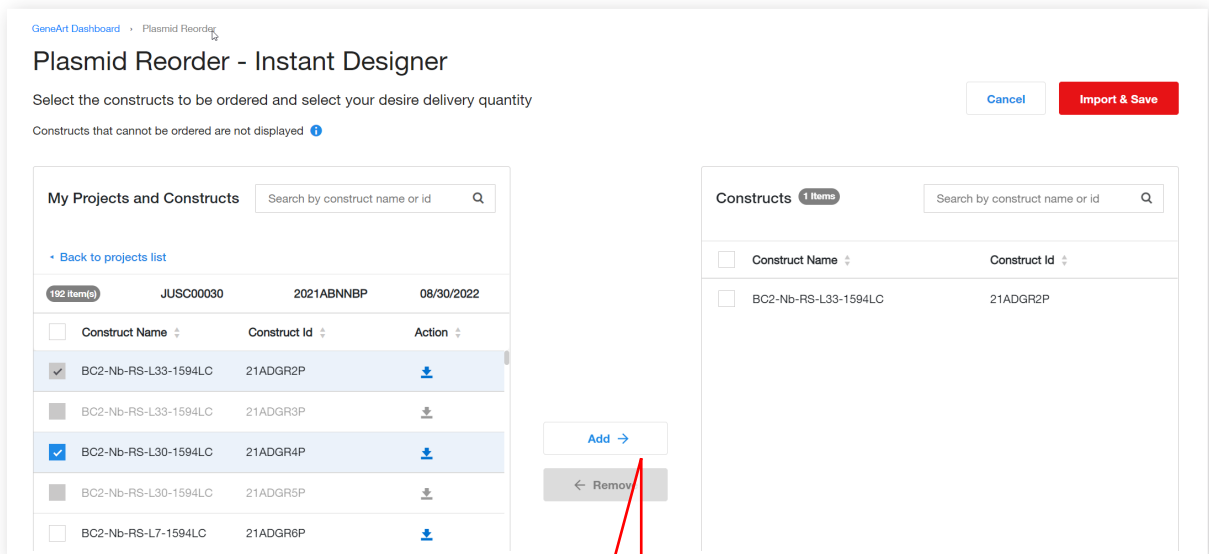
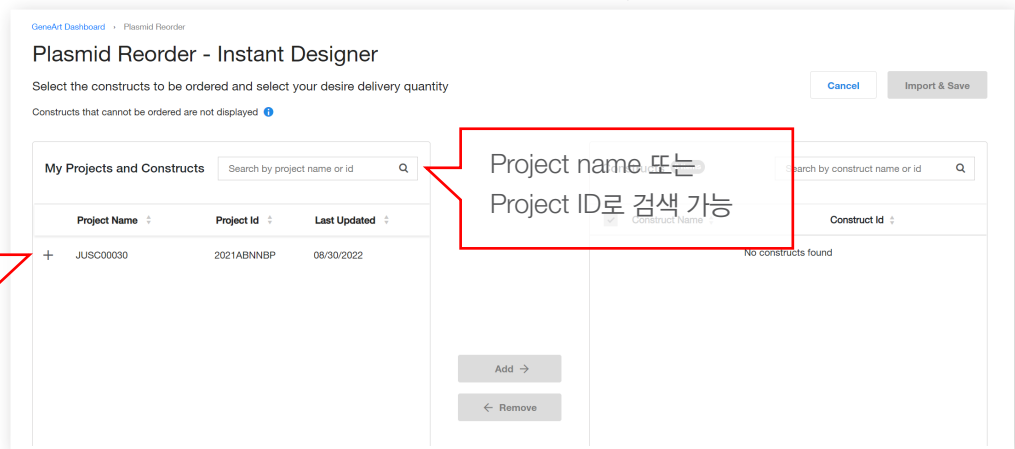


Plasmid Reorder

Plasmid 재주문하기



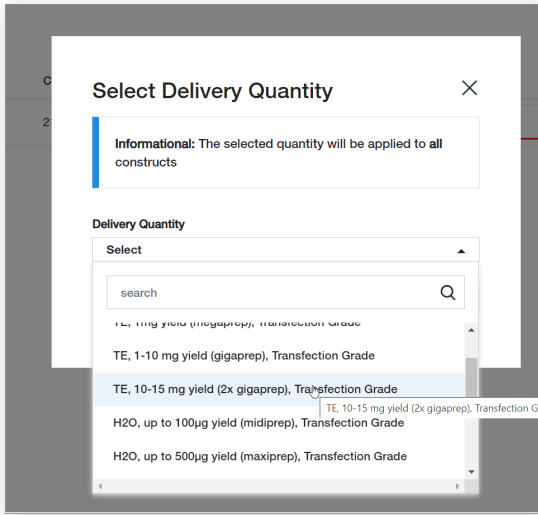
온라인으로 construct를 구매할 이력이 있는 고객분들은 + 를 클릭하시면 Plasmid 재주문 가능



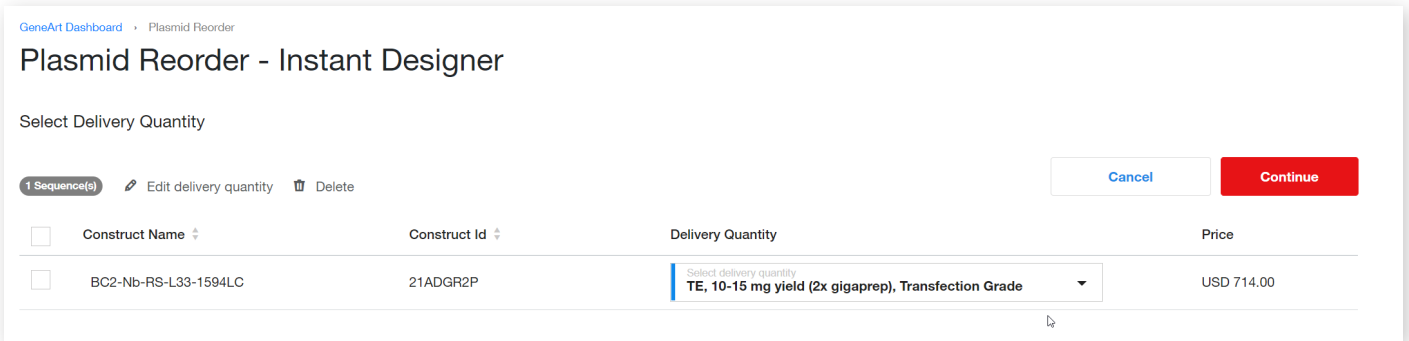
Constructs 선택 후 "Add" 클릭하여 재주문하기

Plasmid Reorder How to start

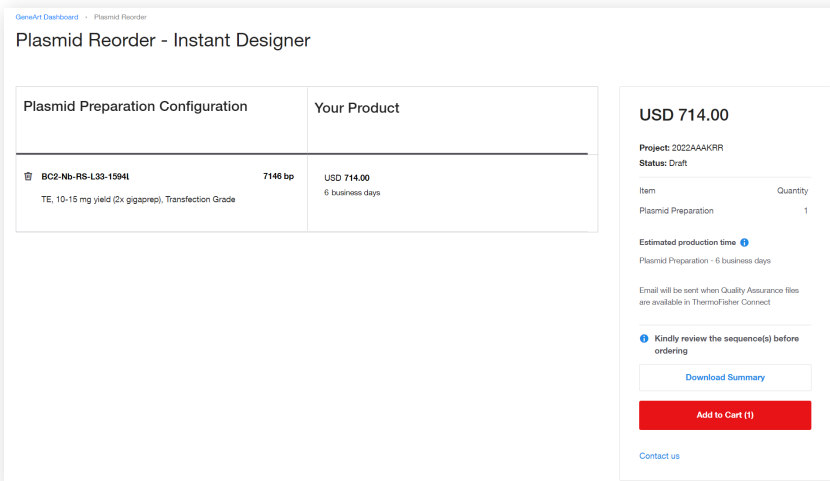
1. Construct의 원하는 타입의 delivery quantity 선택



2. Delivery quantity 검토 및 선택



3. 결제를 위해 장바구니 담기



 Learn more at thermofisher.com/geneart

Thermo Fisher Scientific 씨모 피셔 사이언티픽 솔루션스 유한회사
서울시 강남구 광평로 281 수서 오피스빌딩 12 층, 06349 | 대표번호 : 02-2023-0600

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