

# mRNA Ordering Tutorial

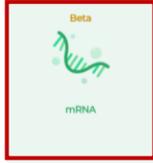
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Welcome to GenHub Online Ordering Center

Gene and plasmid services on GenSmart 2.0

Gene Synthesis (From Gene To Plasmid) | Gene Fragments | Plasmid DNA Preparation (Gene Synthesis Excluded) | Vector Onboarding | GenSmart Elite

Services for downstream application



More services coming soon

mRNA

Project Name  
mRNA\_20250227Mcw

Application  
mRNA

**Start New Project**

**Page1.** Firstly, please click the mRNA icon to **start a new project**. You can also edit your project name and your application area if you like.

Project Name: mRNA\_20250227VZ2

Batch Optimization | 0 Selected | Batch Add Sequence | Download Sequences

No.	Status	Sequence Name	5' UTR	3' UTR	Coding sequence	Length	5' CAP	Poly(A) Tail	Detail
1			Please Sel...			0	Please Select	100	Setting
2			Please Sel...			0	Please Select	100	Setting
3			Please Sel...			0	Please Select	100	Setting
4			Please Sel...			0	Please Select	100	Setting
5			Please Sel...			0	Please Select	100	Setting

Add 5 Rows Apply

**Page2. Brief Introduction to This Page:** Now you start designing your project. In this page, you can input **nucleotide sequence** in the red box and name your sequence in the green box. If you have a preferred host for use, you can click the **'view'** button after the red box to perform codon optimization on the sequence you entered. You can also configure the 5' UTR, 3' UTR, 5' CAP, and Poly(A) Tail in the corresponding columns. In the end, if you have any customized needs for your mRNA products, please click the **'setting'** button on the right side of each row to edit.

Batch Optimization 0 Selected

[+ Batch Add Sequence](#) [Download Sequences](#)

No.	Status	Sequence Name	5' UTR	3' UTR	Coding sequence	Length	5' CAP	Poly(A) Tail	Detail
1			Please Select			0	Please Select	100	Setting
2			Please Select			0	Please Select	100	Setting
3			Please Select			0	Please Select	100	Setting
4			Please Select			0	Please Select	100	Setting
5			Please Select			0	Please Select	100	Setting

Add  Rows [Apply](#)

**Page2. Function Expansion:** You may have noticed the button [+ Batch Add Sequence](#) in the upper right corner. If you have multiple sequences to order, you can click it for batch editing in the table. Or click the 'Apply' button below to add more rows for editing.

After completing all editing, you can click [Download Sequences](#) to save the sequences by yourself.

## DETAILS

In our system, we offer **four** types of **Cap** (No Cap, Cap0, Cap1, Cap2) and **five UTRs** to choose from. Their respective application scenarios are given below:

- UTR1: General mRNA application, GS IP, utilized in all GenScript's catalog mRNA product
- UTR2: General mRNA application, GS IP
- UTR3: General mRNA application, GS IP
- UTR4: General mRNA application, GS IP
- No UTR: For RNA oligo without UTR or polyA, No T7 promoter

For the **setting** button, you can determine the quantity, concentration, number of the vials and solution buffer of your products. It is worth mentioning that the **Modified NTP Options** defaults to **N1-methylpseudouridine**, as it is most commonly used. You can also change it to other options according to your own needs: like 5-Methoxyuridine, Pseudouridine, 5-Methylcytidine and Unmodified.

## Setting

Name test1 Details ×

mRNA Quantity  
1 mg

Concentration Adjustment  
Flexible (0.5-2 mg/ml)

Aliquoting to Vials  
x1 mL Vial 1

Desired Buffer  
1mM Sodium Citrate(pH6.5)

Modified NTP Options  
N1-Methylpseudouridine

Dephosphorylation  
(recommend for lower immunotoxicity in in vivo applications)  
No

Purification

Research-Grade

Oligo dT Purification (Preclinical-Grade)  
+ Additional Fee

Add-on

dsRNA Removal (Optional)

Quality Control

Research-grade Standard QC (Free)

Research-grade Upgrade QC  
+ Additional Fee

Identification

Appearance (Default)

Poly A tail Length

Sanger Sequencing

RNA Length by CE

RNA Concentration (Default)

RNA Length by agarose gel (Default)

pH (Default)

Purity

A260/280 Ratio (Default)

Capping Efficiency

Size based Integrity by CE

Impurity

Total Protein Residue

Plasmid DNA residue

dsRNA residue

Safety

Endotoxin by gel clot (Default)

Endotoxin by Chromogenic LAL

Bioburden

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**Page3.** Now you enter the customized quality control page. In this page, you can make customized requirements for the **Purification, Identification, Purity** and **Safety** testing of your product mRNA.

If you have no special requirements, you can keep everything as default.

For the two options of Quality Control, **standard QC** is free since it is already included in the service. **Upgrade QC** needs additional fee but your products will get more advanced and detailed identification and purity tests.

No matter which **Quality Control** option you choose, you can see the selected services below and check if you want.

After all settings, please click **Continue** to go on.

