AZENTA
LIFE SCIENCES

115 Corporate Boulevard
South Plainfield, NJ 07080
Tel (908)-222-0711 ext. 3
Fax (908) 333-4511
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GENE SYNTHESIS ORDERING GUIDE

GETTING STARTED

Log into your online GENEWIZ account → Select "Gene Synthesis" tab on the left side → Select the bubble for service type of interest.

Have a more specialized project? Kindly see our Antibody Synthesis or AAV Plasmid Synthesis guidelines below.

ORDER INFORMATION:

The top section of the form is composed of four optional fields (order name, order comments, promotion code, and coupon code). Additionally, there is the option to submit any documents with your inquiry.

Need help with a specific field?

Click "?" next to the fields for additional information or click "? Help" on the right-hand side for help options.

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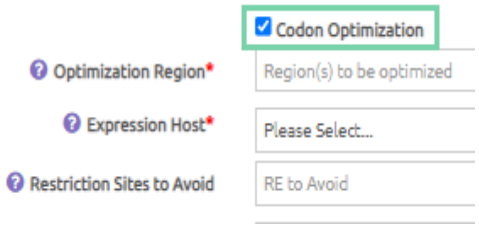
SEQUENCE DETAILS:

Your project details will be entered in the second part of the form. This will include information such as (but not limited to): sequence(s) to be synthesized, vector information, cloning strategy, any add-ons (i.e., large-scale DNA preparation, endotoxin-free preparation)

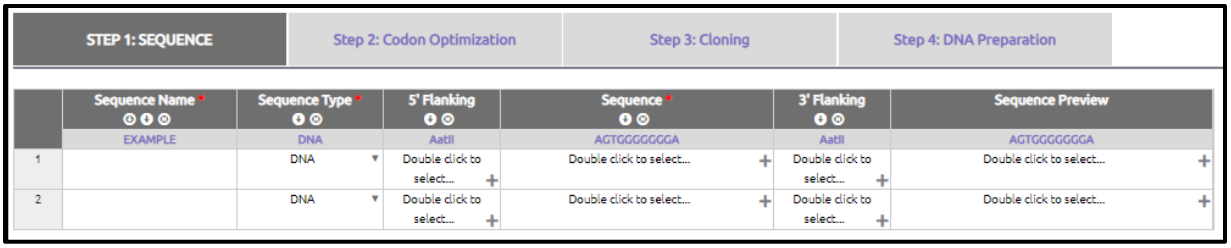
Would you like your sequences to be codon optimized?

Select the box next to Codon Optimization located above the Vector information field. Once this is done, additional fields for codon optimization will appear within the form.



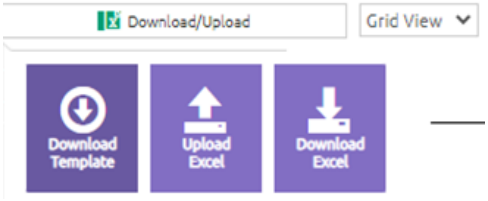
GRID VIEW:

If you have multiple sequences within your order, we recommend you use the "Grid View" option available at the top right corner of the order form. The inquiry form will then switch to the format shown below:



Want to fill your form out in excel?

Download an excel template by clicking the Download/Upload button at the top right corner of the order form. Once completed, you can upload this form.



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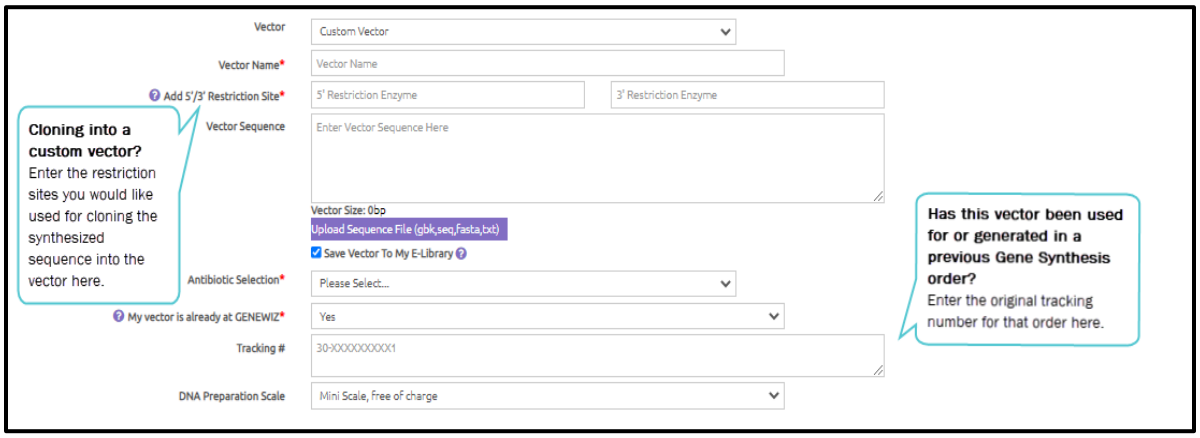
CLONING INTO A CUSTOM VECTOR?

We currently only provide our in-house pUC-GW-Kan/Amp vectors for cloning.

Should you prefer cloning into a different vector, an aliquot of this vector will need to be provided upon confirmation of your order. Additionally, information regarding this vector will need to be entered within the ordering form, as shown below.

*Helpful note: we store any starting material provided, or final constructs generated at our facility for up to **two years** to be used for any future orders. For more information, please find our Sample Storage Policy here.*



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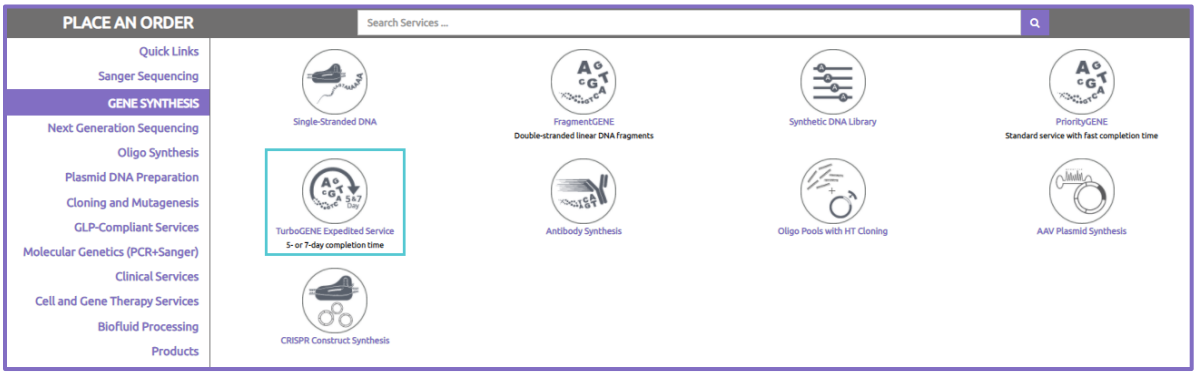
TurboGENE Synthesis

Purpose: this service is the expedited version of our standard gene synthesis service, PriorityGENE. The process for submitting an inquiry is the same. Currently, we offer two expedited options: TurboGENE-5 and TurboGENE-7.



Service	Turnaround time
TurboGENE-5	Starting at 5 business days
TurboGENE-7	Starting at 7 business days
PriorityGENE	Starting at 8-10 business days

Our TurboGENE services follow a similar process to our Standard Gene Synthesis service; however, the following restrictions apply:

1. For TurboGENE-5, the sequence length must be ≤ 1200 bp qualify
2. For TurboGENE-7, the sequence length must be ≤ 2000 bp qualify
3. Sequences must not contain complex features (i.e. highly repetitive regions, high/low GC content, etc.). *For more complex sequences, please use our standard gene synthesis service.*

Please note, if the sequence entered does not qualify for the selected expedited service, the project will automatically be downgraded to the next applicable service line.

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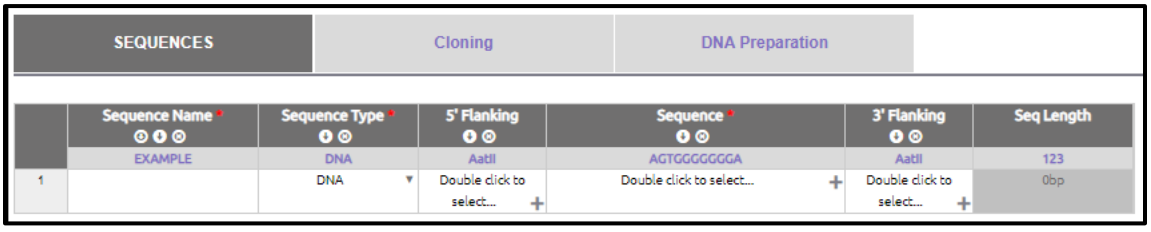
Antibody Synthesis

Purpose: this service provides synthesis and cloning of your antibody heavy/light chain sequences into any custom vector in as few as 6 days, the **fastest turnaround time** on the market.

Our Antibody Synthesis follows a similar process to our Standard Gene Synthesis service; however, the following restrictions apply:

1. The sequence length must be ≤ 1500 bp qualify
2. Sequences must have an overall GC content between 20-80% (local GC between 20-80%) to quality. *For more complex sequences, please use our standard gene synthesis service.*

The fields within this inquiry form are identical to that of our PriorityGENE form, outlined above.



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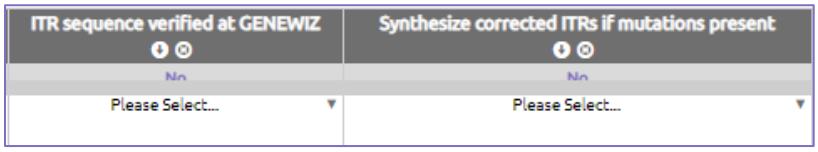
AAV Plasmid Synthesis

Purpose: Synthesize and clone transgene expression cassettes into custom AAV vectors with high efficiencies. All final products will come bundled with mini-scale, or large-scale DNA preparation, using our new AAV plasmid preparation protocol and delivery of AAV-ITR sequence verified AAV plasmids.

Most of the fields within this inquiry form are identical to that of our PriorityGENE form, outlined above. However, there are some additional fields to complete within **Step 3: Cloning**.

Step 3: Cloning

When cloning into a custom plasmid with ITRs, two additional fields within the cloning tab will appear:



ITR Sequence Verified at GENEWIZ: Has your vector been used in a previous GENEWIZ project? Did this project include sequence verification of the ITR region within the sample provided? If yes, the team will skip additional sequence verification of the starting material prior to cloning.

Synthesize Corrected ITRs if Mutations Present: After cloning, the team will sequence verify the ITR regions within final construct as part of our AAV synthesis protocol. If the sequencing results do not align with the reference sequence provided for the destination vector, the team will perform mutation correction to fix these sequences. *

**Please note, this will incur an additional charge. If the ITR regions remain intact after cloning, you will not be charged for this if "Yes" was originally selected.*

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Next Steps?

After you submit your inquiry, a member of our Project Management team will review the details of your project. Typically, we expect to provide a non-obligation quotation to your account within one business day. Should we require any additional information, you will be contacted promptly via email.

Any Questions?

Kindly find a list of our Gene Synthesis FAQs here.

Additionally, please feel free to contact a member of our Project Management team by emailing us at GS@Azenta.com, or giving us a call at (908)-222-0711 ext. 3 (United States) or +49-341 520 122-41 (Europe/UK).