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GeneArt® It

The online GeneArt® portal

Quick reference guide

The GeneArt® portal on our website offers intuitive and simple sequence design and ordering of your gene synthesis projects. This automated portal helps you enter, edit, and optimize your sequences, and offers immediate price quote information and ordering capabilities. Nearly all of our GeneArt® services can be ordered using this intuitive tool. You can even perform *in silico* cloning and store your gene sequences, projects, and personal vectors for future orders. Save time and have full control and flexibility with these features! For full instructions, and details on using the GeneArt® portal for other features such as the Large Order Assistant, please refer to the comprehensive printable tutorial at lifetechnologies.com/genearttutorials

GeneArt® portal features

- Immediate ordering of genes on the starting screen—just copy and paste your sequence
- Choice of standard pMX vector or expression-ready vectors for Express cloning
- Quick procedure for sequence editing and gene expression optimization in several organisms (optional, if wild type is not desired)
- Add to cart and obtain price quote for easy ordering

GeneArt® portal instructions

Go to lifetechnologies.com/geneartgenesynthesis and click the “Order now” button. This brings you to the log-in screen. If you’re already registered with our website, use your username and password. Or, register as a new user.

There are 3 main sections within the GeneArt® portal: Project Manager, Project Configurator, and Project Summary. Start and organize your projects in the **Project Manager**; its simple design can help you efficiently manage your projects. Then, set up your individual project requirements with the icon-based **Project Configurator** (Figure 1).

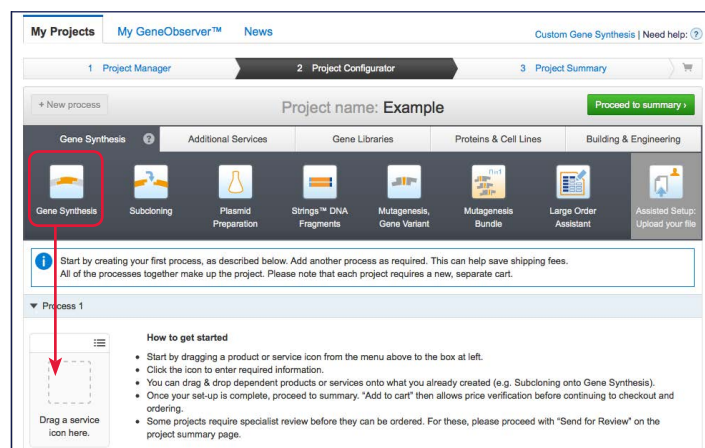


Figure 1. The starting screen of the Project Configurator within the GeneArt® portal.

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Identify your new project and create a folder. Drag and drop your desired service, such as GeneArt® Gene Synthesis or Strings™ DNA Fragments, into the Process window. Click on the upper-right icon to edit the content and begin sequence input (Figure 2).

The sequence input process consists of 5 steps, which you can navigate using the tabs, as outlined in Figure 3.

1. Enter Sequence (Figure 4)
 - DNA or protein
 - Enter (copy/paste) unformatted or FASTA sequence
2. Edit Sequence (optional)
 - Define ORF
 - Add 5' and 3' cloning sites (keeping in mind your downstream choice of cloning technologies and vectors)
 - Add/delete/exchange sequences
3. Optimize Sequence (optional)
 - Protect restriction sites
 - Protect sequence parts
 - Identify motifs to avoid
 - Optimize for selected organisms (for optimal protein expression)
4. Sequence Summary
 - Summary and GC content with downloadable PDF version
5. Save & close

Complete the ordering process using Proceed to Summary (to get to **Project Summary**) and Add to Cart (which will yield a price quote) functions.

In addition to **GeneArt® Gene Synthesis**, the GeneArt® portal can be used to order many other products and services. These include **GeneArt® Strings™ DNA Fragments**, **GeneArt® Elements™ vector construction**, **GeneArt® Precision TALs**, **GeneArt® Directed Evolution**, and services such as **subcloning**, **plasmid preps**, and **custom proteins and cell lines**. Moreover, you can check the status of your web order(s) in the manufacturing process—simply use the GeneObserver™ module within the portal, available 24 hours per day.

Please see our library of videos on GeneArt® portal usage, including overview, setup, quick order, optimization, and subcloning services, at lifetechnologies.com/genearrtutorials

For more information, please contact geneartsupport@lifetech.com or go to lifetechnologies.com/genesynthesis

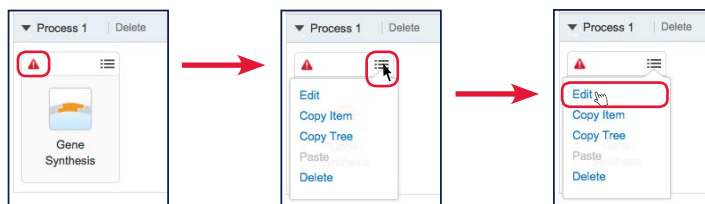


Figure 2. The red exclamation point indicates that further information is required. Hover your cursor over the drop-down menu icon to view the choices. Click on “Edit” to continue to the Enter Sequence tab.

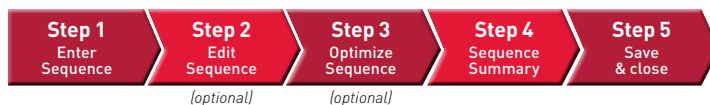


Figure 3. The five steps within the Project Configurator, two of which are optional. An actual screen representation of how this looks can be seen in the top portion of Figure 4.

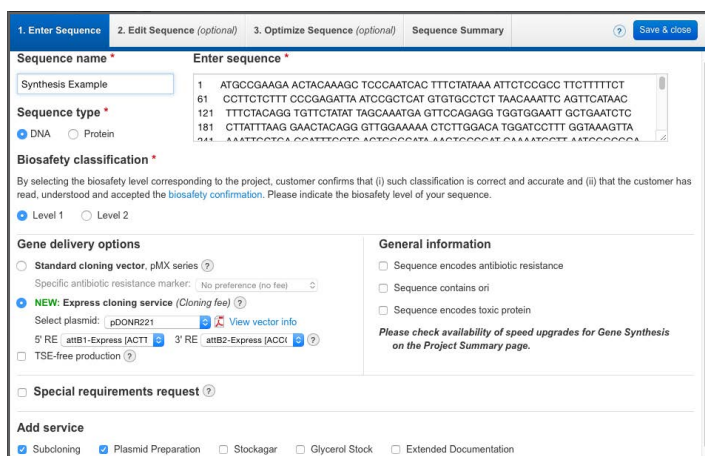


Figure 4. The Enter Sequence tab within the Project Configurator. In this example, a DNA sequence has been added, as well as the Express cloning, subcloning, and plasmid preparation services.



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