

ORDERING ENFINIA™ DNA

Frequently Asked Questions

How do you synthesize such long DNA fragments in such a short time frame?

We use a patented cell-free cloning technology to produce long, complex, linear double-stranded ENFINIA DNA that is selectively amplified to μ g scale using PCR. Our process enables us to ship NGS-verified sequence-perfect DNA up to 7 kb in as little as 6 business days from order.

What gives ENFINIA DNA higher per-base accuracy than other methods?

Our cell-free cloning technology selects and enzymatically amplifies a single perfect molecular species – a molecular clone. Confirmed by customer testing and NGS sequencing, we've determined that our median perbase error rate is 1 in 70,000 bp, 20 times more accurate than published specifications for conventional gene fragment synthesis. At these levels, >95% of the molecules in every gene shipped are sequence-perfect.

How do you ensure the quality of ENFINIA DNA?

We perform NGS to validate the purity, accuracy, and length of every DNA sequence before shipping your order.

What are the DNA sequence limitations (e.g., types of problematic sequences) for ENFINIA DNA? How do you handle highly complex, structured, or repetitive sequences?

Elegen is a leading supplier of long and complex DNA, and we've only just begun to unleash the power of our technology. We offer two DNA synthesis options today, depending on the makeup of your sequence.

Our standard complexity DNA synthesis allows us to generate sequences with:

- An overall GC content of 25 to 65%
- A 100bp GC content of 22 to 75%
- A local GC variation of up to 60%
- Repeats of up to 20 bp
- Homopolymers of up to 7 based for G/C and 8 bases for A/T $\,$

Our high-complexity DNA synthesis allows us to generate sequences with:

- An overall GC content of 20 to 80%
- A 100bp GC content of 12 to 85%
- A local GC variation of up to 70%
- Repeats of up to 150 bp
- Homopolymers of up to 15 based for G/C and 30 bases for A/T

What are the per-base cost comparisons with other DNA synthesis methods?

Our per-base pair pricing starts as low as \$0.20 per base and may increase depending on sequence complexity, length or yield. Unlike low-quality, shorter non-clonal gene fragments, Elegen's linear DNA quality is 20x more accurate, with higher complexity, and ships at lengths up to 7kb, NGS-verified, as fast as 6 business days from order. ENFINIA DNA provides the length, quality, and complexity of clonal gene synthesis at the speed of gene fragment synthesis.

How do I place an order for ENFINIA DNA?

New users can use their work email to register for Elegen's Order Submission Portal. Once an account is created, a user can click the "Order Now" button from the "Home" page, select ENFINIA DNA, and enter sequences individually or by uploading a file in .XLS, .CSV, .TSV, or FASTA format. All entered sequences will be analyzed for synthesis feasibility based on sequence length and complexity (e.g., GC content, sequence repeats, and homopolymers). If any of your sequences are rejected, a detailed reason is provided.

For the accepted sequences, users can also select a desired yield for each sequence from a dropdown menu. Once billing and shipping information is entered, users can proceed to checkout, where they'll be prompted to enter payment information and accept our terms and conditions. Users are will also be asked to acknowledge our biosecurity terms, which comply with the Harmonized Screening Protocol created by the International Gene Synthesis Consortium.

Is there a minimum order size or scale for ENFINIA DNA?

There is no minimum order size and three synthesis scales: our standard 1 to 3 μ g scale, 5 to 15 μ g scale, or 20 to 60 μ g scale. We add a flat charge of \$75 and \$250 for our medium- and large-scale synthesis orders, respectively.

What type of pre- and post-order support do you offer?

Customers can place an order unassisted using Elegen's order submission portal. Once you've registered as a user through this portal, you can access our Help Center, where the Customer Care Team is available to help you answer any questions you may have throughout the ordering process. If you need linear DNA beyond a 7 kb length or at a scale not offered through our portal, our Technical Support team is also available to assist you in developing a build strategy for your specific project.

Once your order has been placed, a personal account manager will contact you to ensure that you receive your order on time and to your expectations.

For general inquiries involving our products or sales, you can contact us here.

What is the average turnaround time for an order?

Confirmed orders for standard complexity DNA are typically shipped between 6 and 8 business days. High-complexity DNA synthesis orders are typically shipped between 10 and 15 business days after they have been confirmed. If your order is placed after 6 p.m. ET, production will begin the next business day (Monday through Friday).

I am located in a country outside of the U.S. Can you ship DNA to me?

We ship ENFINIA DNA worldwide from our manufacturing locations in the U.S. If you have questions about our ability to ship to your location, please contact us here.

How can I pay for my Elegen order?

We have flexible payment options for orders and accept purchase orders (POs) and blanket POs. We also accept Visa, MasterCard, AMEX, and Discover credit cards.



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