ELEGEN

ENFINIA™ PLASMID DNA

Frequently Asked Questions

Do you screen ENFINIA Plasmid DNA for endotoxins?

No, ENFINIA Plasmid DNA is not screened for endotoxins. Each ENFINIA Plasmid is built from our ENFINIA Linear DNA, produced with our patented cell-free cloning technology, then cloned into E. coli. An endofree kit is used for Midi-preps and Maxi-preps, however, if you are looking for a completely cell-free product, consider our ENFINIA Linear DNA or IVT Ready DNA products, which are completely cell-free.

How do I place an order for ENFINIA Plasmid 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 Plasmid 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. 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 will also be asked to acknowledge our biosecurity terms, which comply with the Harmonized Screening Protocol created by the International Gene Synthesis Consortium.

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.

How do you measure the DNA yield of each ENFINIA Plasmid ordered?

We measure the yield with a fluorescence assay. Shipping manifests for ENFINIA Plasmid DNA orders will report the measurements from the Thermo Fisher Scientific Quant-iT dsDNA Broad-Range Assay. We recommend re-quantifying the DNA you receive with your preferred method before use. Note that for midi and maxi prep quantification is done using nano-drop.

How should I resuspend and store ENFINIA Plasmid DNA?

ENFINIA Plasmid DNA is dried down in 100% molecular grade water before shipment instead of a buffer to avoid excess salts. We recommend resuspending ENFINIA Plasmid DNA in molecular grade water or TE buffer (10 mM Tris, 0.1 mM EDTA, pH 7.5) and keeping it at -20°C for long-term storage.

Which host is used for cloning ENFINIA Plasmid DNA?

ENFINIA Plasmids containing a pUC19, pBR322, or psaRNA backbone are cloned in the New England Biosciences NEB10-beta competent *E. coli* cell strain. Plasmids containing a pAAV2 backbone are cloned in the Thermo Fisher Scientific Stbl3 competent *E. coli* cell strain.

Is ENFINIA Plasmid DNA sequence-verified?

Yes, the entire insert and plasmid backbone is NGS-verified, however, our current sequencing methods cannot provide high-confidence measurements of G/C homopolymers longer than 8 bp and A/T homopolymers longer than 12 bp.

What information will I receive along with my ENFINIA Plasmid DNA order?

The Order Details page for each plasmid order on the Elegen portal is updated upon order completion with copies of the sequence information provided during order creation and a shipping manifest that includes the full sequence and yield of each plasmid synthesized, as well as recommendations for storage and downstream use.

Can you provide a CoA for ENFINIA Plasmid DNA?

At this time we do not provide a standard certificate of analysis with our shipments, but depending on your specific requirements we may be able to provide a suitable substitute. Please contact our customer support team at customer.support@elegenbio.com for more information.

Will my ENFINIA Plasmid DNA order contain any genomic DNA (gDNA)?

For all ENFINIA Plasmid DNA orders, less than 10% of the total mass of each plasmid in the order may contain genomic DNA.

What restriction enzymes do you use for ENFINIA Plasmid DNA cloning?

We use the Type IIS restriction enzyme PaqCI to assemble ENFINIA Linear DNA fragments into plasmids before cloning. We recommend limiting the number of PaqCI sites within your insert sequence to a maximum of 4 and avoiding multiple sites sharing identical 4 bp overhangs.

Do you offer glycerol stocks of ENFINIA Plasmid DNA?

Currently, we do not provide glycerol stocks of ENFINIA Plasmid DNA.

How do you ship ENFINIA Plasmid DNA?

ENFINIA Plasmid DNA is shipped in dried format in a 96-well microplate (Thermo Fisher PN 249944) with one plasmid per well. The dried DNA is shipped at ambient temperature.

What quantity of ENFINIA Plasmid DNA should I expect for each plasmid ordered?

For ENFINIA Plasmids with standard backbones, expected yields vary depending on prep scale and vector type.

High-copy vectors (e.g., pUC19):

- **Mini-prep:** 1 µg
- **Midi-prep:** 100 µg
- **Maxi-prep:** 1 mg

Low-copy vectors (e.g., pBR322):

- **Mini-prep:** 50 ng
- **Midi-prep:** 10 µg
- **Maxi-prep:** 100 µg

Actual yields may vary based on vector backbone, insert sequence, and insert length. Expected yields above apply only to plasmids with a standard backbone. Standard plasmids that fail QC due to abnormally low yields will be considered a synthesis fail.

Midi-prep and Maxi-prep DNA is purified using Macherey-Nagel NucleoBond Xtra Plus EF transfection grade kits and reported as measured by NanoDrop. Mini-prep yields are reported as measured by Thermo Fisher Scientific Quant IT assay.

Where can I find more information on the standard vector backbones you offer for ENFINIA Plasmid DNA?

Product information sheets for Elegen's pBR322, pUC19, psaRNA and pAAV2 (CAG, CMV, hSyn promoters or ITRs only) backbones can be found on our website: elegenbio.com/enfinia-plasmid-dna/

Where can I find detailed acceptance criteria for ENFINIA Plasmid DNA sequence submissions?

Our sequence submission guidelines can be found on our website: elegenbio.com/enfinia-plasmid-dna/

How fast can I receive ENFINIA Plasmid DNA?

Following order confirmation, ENFINIA Plasmids of standard scale typically ship between 10 - 15 business days for standard complexity sequences and 12 - 17 business days for high complexity sequences. Midi- and Maxi-prep scales require an additional 3 - 4 business days. If your order is confirmed after 6 p.m. ET, production will begin the next business day (Monday through Friday).

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Order Now
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