

ENFINIA™ Linear DNA

Specifications and Submission Guidelines

ENFINIA™ DNA is long, linear, high-accuracy, NGS-verified DNA manufactured in the United States by Elegen and shipped in 6 to 8 business days. Our proprietary cell-free DNA synthesis platform delivers up to 7kb in length while maintaining error rates as low as 1:70,000/bp to minimize or eliminate time spent to assemble, clone, and sequence DNA. Iterate through designs faster, gain insights faster, and complete development projects faster. Save weeks or more in comparison to assembling constructs from shorter DNA fragments or waiting for clonal gene synthesis services.

Sequence Submission Acceptance Criteria

	Standard Complexity	High Complexity
DNA Sequence Length	300 - 5,500 bp	300 - 7,000 bp †
Overall GC Content	25 - 65%	20 - 80%
100 bp GC Content	22 - 75%	12 - 83%
Local GC Variation	Up to 60%	Up to 70%
Repeats	Up to 20%	Up to 150 bp
Homopolymers*	Up to 7 bases for G/C Up to 8 bases for A/T	Up to 15 bases for G/C Up to 30 bases for A/T

Specifications

1. ENFINIA Linear DNA can be ordered at a standard synthesis yield of 1-3 µg or higher synthesis yields of 5-15 µg or 20-60 µg.
2. ENFINIA Linear DNA is delivered as dried-down double-stranded DNA in a 96-well microplate, one sequence per well.
3. Each ENFINIA Linear DNA sequence includes a 46bp adapter on the 5' end and 42bp adapter on the 3' end. Adapter sequences are provided.
4. Each ENFINIA Linear DNA sequence is NGS-verified before shipment.

*The QC methods currently used for ENFINIA™ DNA production may not be reliably measure homopolymer sequences longer than 10 bp. An accepted sequence containing homopolymers longer than 10 bp may contain molecules where the homopolymer is shorter or longer than expected.

†Certain sequence complexities or combinations of complexities may not be compatible at lengths greater than 5,500bp.