

Twist Gene Fragments

Synthetic Gene Fragments are an inexpensive, rapid, and efficient way to build the genes you need for your research. Twist's silicon-based, high-precision DNA synthesis platform results in higher quality genes and significantly increased throughput and scalability.

Twist Gene Fragments improve your cloning process by minimizing colony screening. This allows you to save time and money by dramatically reducing cloning and sequencing costs. Think bigger, design on a grander scale, and accelerate your discoveries.

SPECIFICATIONS

- Double-stranded DNA
- Length: 0.3 – 1.8 kb
- Scale: 100 ng – 1 µg
- Ships in 5 to 8 business days
- Gene Fragments pricing:
 - With adapters, 7¢/bp
 - Without adapters, 8¢/bp

KEY BENEFITS

Screen Less, Discover More

- Industry leading error rate
- Reduced cloning costs

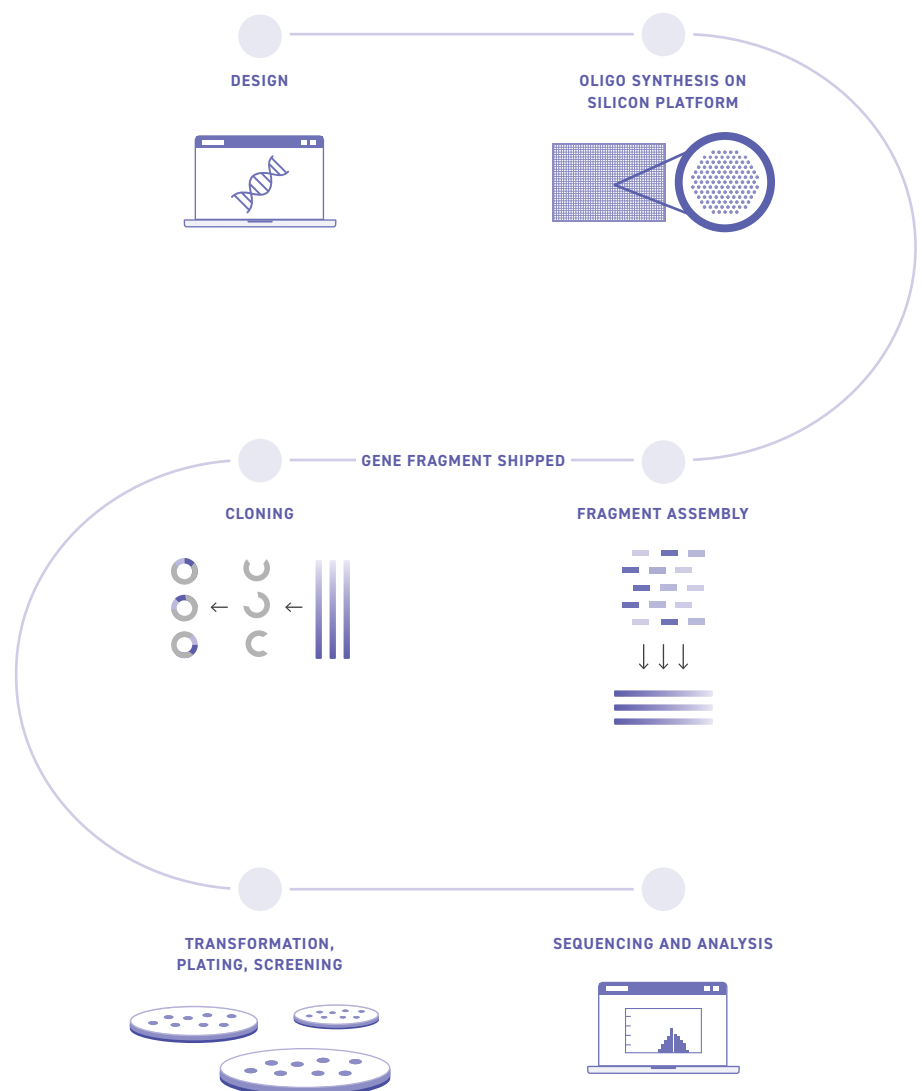
Think Bigger on a Budget

- No order limit
- Fixed price per base pair regardless of length

Your DNA, Your Way

- Easily assemble into larger genes or pathways
- Compatible with all downstream cloning methods
- Available with and without adapters

Design. Build. Test.



Industry Leading Error Rates

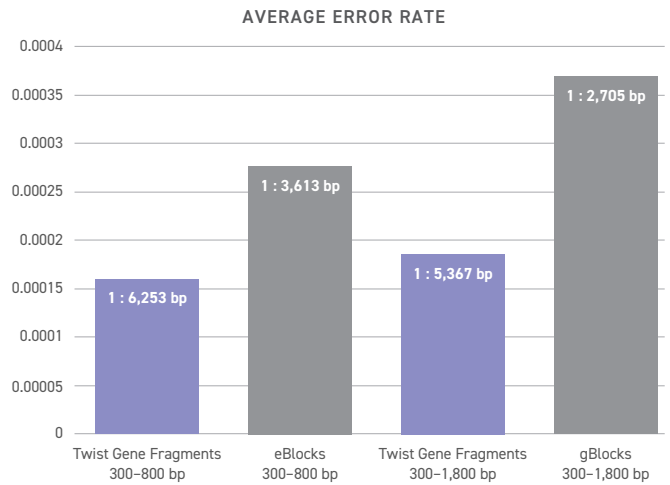
Twist Bioscience® utilizes its industry-leading production process to deliver quality Gene Fragments quickly, reliably, and affordably. Gene Fragments begin as oligonucleotides synthesized on Twist Bioscience’s proven semiconductor-based silicon platform. The oligonucleotides are then annealed together, PCR amplified to produce a double-stranded DNA fragment and error-corrected through an enzymatic reaction. The resulting product is a ready-to-use Gene Fragment that is compatible with many applications.

To assess the quality of Twist Gene Fragments, identical dsDNA fragments from 300 bp to 1,800 bp in length were ordered from Twist and ordered from Integrated DNA Technologies, Inc. (IDT). Upon receipt of the fragments from each company, the DNA was cloned into pTwist Amp High Copy plasmid, transformed into DH10B-like cells, and plated onto LB Agar Plates with 100 µg/mL Carbenicillin. After overnight incubation at 37° C, 20 colonies were selected for each gene and sequence-verified using Next-Generation Sequencing.

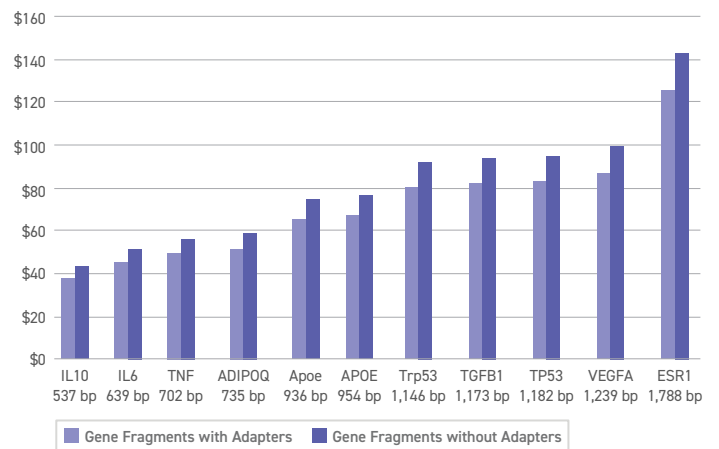
As seen in the figure above, Twist Gene Fragments had a nearly 2-fold improvement in average error rate over IDT gBlocks® across the entire size range and a 1.7-fold improvement over eBlocks across the range of 300–800 bp, with a 1:5,367 bp and 1:6,253 bp error rate respectively. Low error rates translate into fewer colonies that need to be picked and screened to find your perfect gene.

Affordable Performance When You Need It

Accurate fragment synthesis accelerates discovery. Twist Gene Fragments enable you to build more constructs and minimize the time and cost of screening for perfect clones. Twist’s lower overall error rate results in more perfect sequences. The performance and scale translate into a lower price and less effort per gene for you. The following figure illustrates the cost per gene ordered as a Gene Fragment from Twist Bioscience. Buying ready-to-use genes is easier, faster, and more affordable than you thought.



Sequences were ordered from Twist and IDT for genes ranging in length from 300 bp to 1,800 bp increasing by 100 bases between each gene. The graph represents the average error rate of all the sequences for a given product. Note: eBlocks have limited lengths, that dataset spans 300–800 bp. The error rate is derived from the total number of SNP’s divided by the total number of base pairs sequenced adjusted and for sequencing parameters.



YOU DESIGN IT, WE BUILD IT. Get in touch at sales@twistbioscience.com or learn more at twistbioscience.com

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