Clonal Genes

Twist Bioscience is transforming gene synthesis, a process at the core of synthetic and molecular biology. Our silicon-based DNA writing platform significantly increases gene synthesis throughput and scalability, while also reducing turnaround time and price per base. Twist's Clonal Genes offering gives you the flexibility to get the DNA you want, the way you want it. Choose the amount of DNA, and the format you want it in to drive your research. Because every clonal gene is NGS-verified, you can be sure you’re getting the perfect cloned gene every time.

Think on a new scale in your gene designs and accelerate your discoveries.

**SPECIFICATIONS**

- 0.3–5.0 kb cloned into a Twist Vector or your vector of choice
- 100% accurate NGS-verified gene sequences
- DNA mass options:
  - 50 ng–2 μg
  - 2–10 μg
  - 10–100 μg
  - 100 μg–1 mg

**KEY BENEFITS**

**Your Sequence, Your Way**
You choose:
- Mass range
- Normalized concentration
- Suspension buffer
- Plasmid vector
- Insertion site
- Transfection grade or endotoxin free
- Shipping format (to add glycerol stocks or not)
- Add glycerol stocks

**Industry-Leading Price & Rapid Turnaround Time**
- From 9¢ per base
- From 11 business days

**Scalable Synthesis**
- No minimum order size
- Same turnaround regardless of order size

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**DESIGN**

Design your genes, optimize the sequences and select your vector, and let Twist Bioscience do the rest.

**SYNTHESIZE ON SILICON**
We'll synthesize your DNA on our high-throughput silicon platform.

**ASSEMBLE GENES**
Assemble your DNA sequences into genes.

**EXPAND & DNA PREP**
We then propagate your perfect clonal gene to the preferred scale and deliver it in your desired format.

**CLONING & NGS VERIFICATION**
Clone your gene into the desired plasmid and transform. The resulting colonies are picked and NGS-verified to find your perfect clonal gene.

**You design, we’ll do the rest.**
Perfect Sequence for 1 or 10,000 Genes, or More

Our high-throughput silicon platform allows us to miniaturize the chemistry necessary for DNA synthesis. This miniaturization allows us to reduce the reaction volumes by a factor of 1,000,000 while increasing throughput by a factor of 1,000, enabling the synthesis of 9,600 genes on a single silicon chip at full scale. Traditional synthesis methods produce a single gene in the same physical space using a 96-well plate.

Twist Bioscience’s platform is capable of synthesizing thousands of genes each day to meet all your DNA needs. Our silicon-based scalability and high precision oligo production results in high quality DNA synthesis and assembly; qualities that allow Twist to deliver perfect genes of various lengths and difficulty on-time when you need them.

The graph (left) represents Twist Bioscience’s observed success rate for clonal genes. The success rate is defined as the percentage of clonal genes ordered that were delivered without any SNPs or indels. The figure (right) is a graphical representation of our standard NGS-verification performed on every clonal gene. The clonal gene in this figure is an example of an error-free clone. The read depth is indicated across the entire plasmid and no SNPs or indels were detected.