

# Oligo Pools

## SPECIFICATIONS

- ssDNA delivered in a pool
- Up to 300 nt sequences
- Pool sizes have a minimum of 2 sequences with no maximum
- >0.2 fmol average of each oligo
- Turnaround time in business days based on length of sequence:
  - 3-6 for 20-120 nts
  - 3-8 for 121-200 nts
  - 5-10 for 201-300 nts

## KEY BENEFITS

### Precision editing of target loci

- Accurate synthesis for specific targeting
- Industry-leading error rate of up to 1:3,000 nt

### Maximized screening efficiency

- Uniform synthesis ensures excellent oligo representation
- >90% of oligos represented within <2.0x of the mean

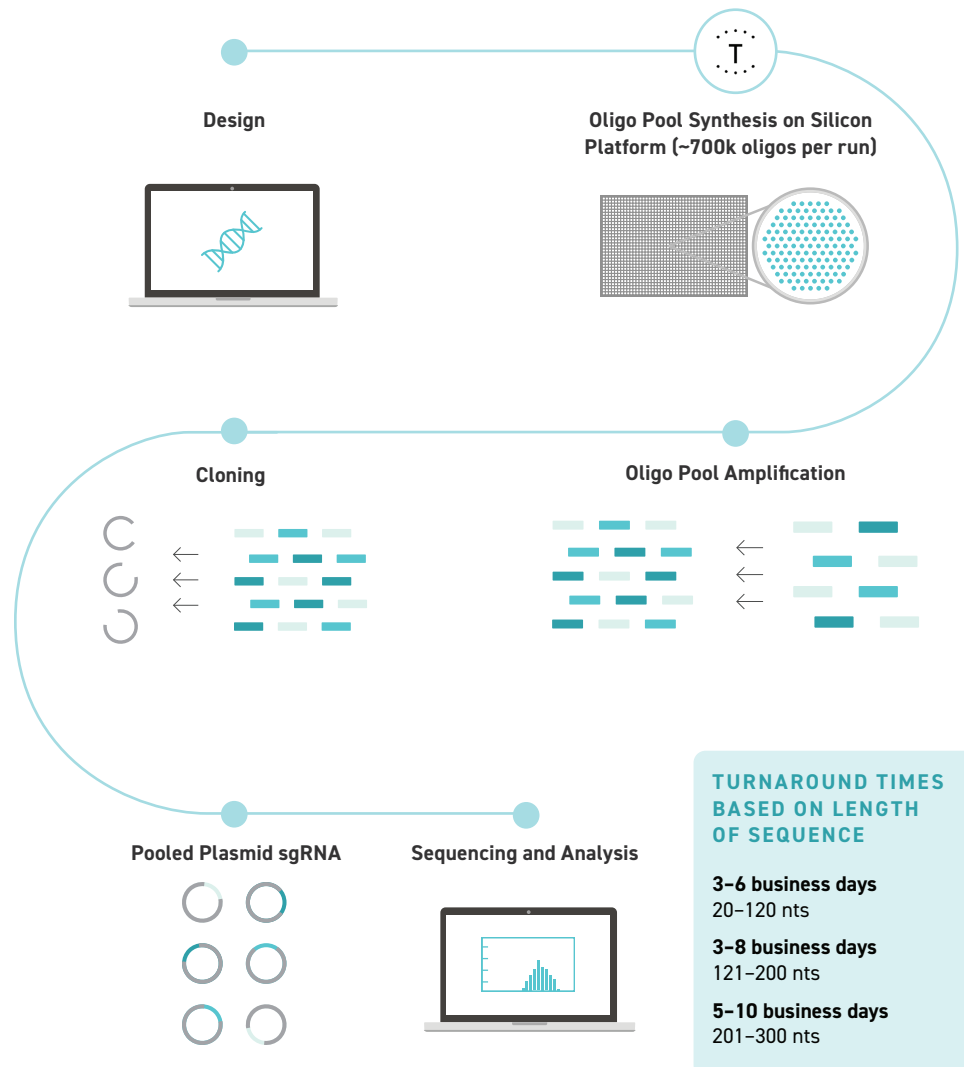
### Flexible pool sizes to fit your screen

- Design your pool for your assay
- Scalability to order the number of oligos you need

Twist Oligo Pools are highly diverse collections of single-stranded oligo-nucleotides synthesized using our silicon-based DNA writing technology. Our synthesis platform enables massively parallel production of hundreds of thousands of high-quality, accurate oligos per run.

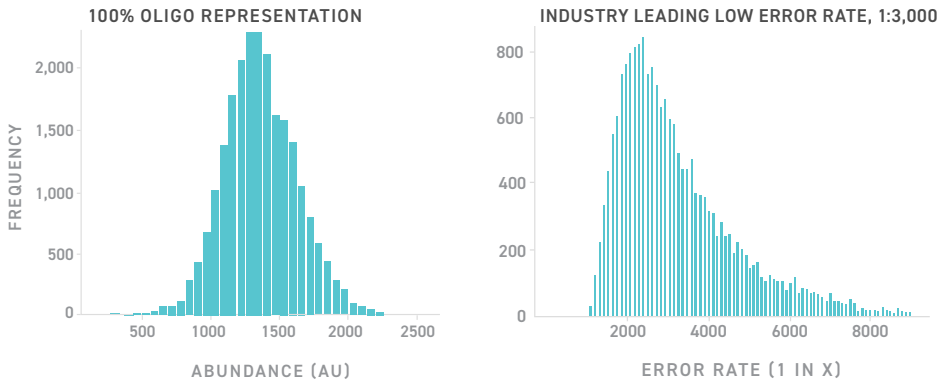
Oligo pools are utilized in many applications including generation of CRISPR guide RNA (sgRNA) libraries, peptide and protein screens, and high-throughput reporter assays.

## Design. Build. Test.

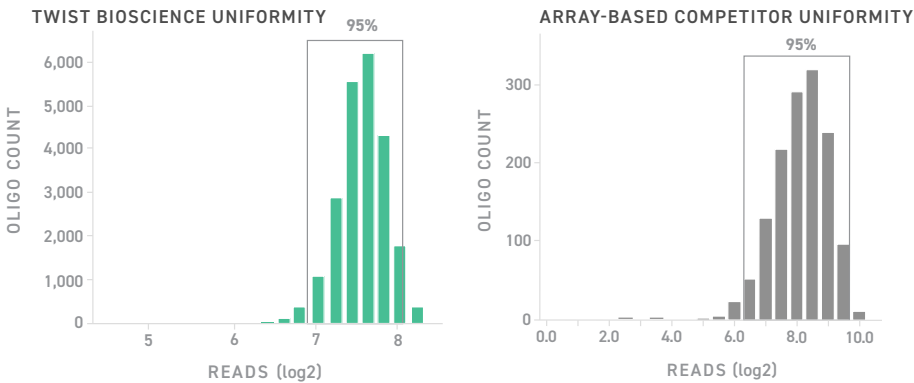


## Highly uniform and accurate synthesis for specific and efficient targeting

Twist Bioscience’s innovative silicon-based DNA writing technology is transforming DNA synthesis. Our proprietary oligonucleotide synthesis platform enables the massively parallel production of hundreds of thousands of high quality, highly accurate oligos per run, allowing the generation of complex and diverse CRISPR screening sgRNA libraries for precision gene editing and maximized screening efficiency.



**Figure A.** Twist Oligo Pools are synthesized at high uniformity, 90% of sequences are present at signals within <2.0x of the mean, ensuring 100% representation [left]. Industry-leading error rate of 1:3,000 nt ensures high target specificity [right].



**Figure B.** Oligo pools synthesized by Twist Bioscience [left] and an array-based competitor [right] were amplified and cloned into a vector, and then sequenced to investigate oligo sequence representation. NGS-based validation of clones generated from each pool demonstrate that the sequences in the Twist Bioscience pool have more uniform sequence representation.

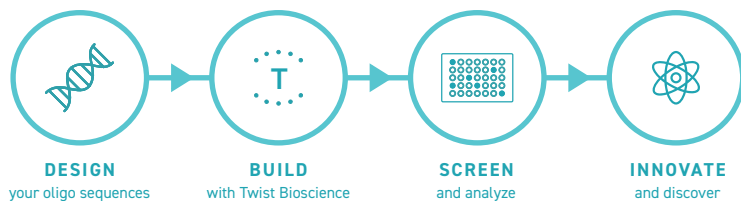
## Sequencing analysis of oligo pools

Twist Bioscience Oligo Pool	Array-Based Competitor Oligo Pool	
100%	>99.5%	sgRNA Recovered
~87%	>~74%	% correct sequence (MiSeq)
~100%	>~70%	% correct sequence (Sanger, 10 clones)

Sequencing analysis of oligo pools generated by Twist Bioscience and an array-based competitor demonstrate that the Twist Oligo Pools contain 100% of the expected sequences and a higher percentage of correct sequences than the competitor pool.

## Libraries made easy from design to build

Think big, screen once. Let Twist build for you.



LEARN MORE at [twistbioscience.com](http://twistbioscience.com) or contact [sales@twistbioscience.com](mailto:sales@twistbioscience.com)

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