

HIFI SEQUENCING FOR PLASMIDS WITH SEQWELL LONGPLEX

Plasmids play a vital role in biologics research and drug development. They are the basis for molecular biology research and all biological therapeutics such as mRNA vaccines, antibodies, AAV gene therapies, stable cell lines, transfer viruses and many more. Incorrect plasmids may lead to incorrect research findings and drug products, potentially creating risks for patients and creating costly program failures.¹

Therefore, careful plasmid sequencing is crucial. Other sequencing methods suffer from shortcomings like an inability to capture the backbone sequence or low accuracy in difficult genomic regions such as homopolymers or regions of high GC content.

Achieve the most accurate sequence information for your plasmids

PacBio® HiFi sequencing overcomes these limitations and allows you to capture the full plasmid sequence, including backbone and difficult regions.

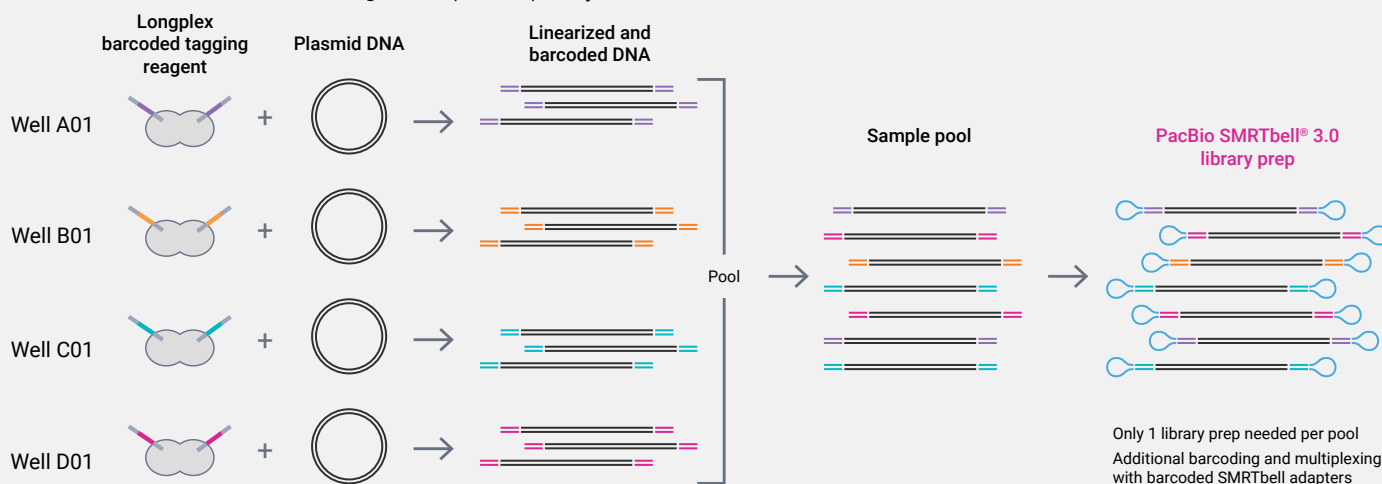
Overcome price hurdles with seqWell LongPlex

seqWell LongPlex is a tagmentation approach that allows the **simultaneous linearization and barcoding of plasmids for library preparation**. Using **LongPlex barcodes** in combination with HiFi barcodes enables a high level of multiplexing and affordable pricing per sample.

To learn more about how to use LongPlex to make highly-multiplexed libraries for high-quality plasmid sequencing with HiFi, read the seqWell protocol.²

The PacBio advantage:

- High accuracy full-length plasmids with uniform coverage across repetitive regions, homopolymers, and GC-rich regions
- Accelerated turnaround times and increased data security with in-house sequencing
- Streamlined workflow with high multiplex capacity



Learn more about HiFi sequencing for Biologics R&D:
pacb.com/biologics-research-and-development

1. Bai X, Hong JF, Yu S, et al. (2025). Prevalence of errors in lab-made plasmids across the globe. *bioRxiv* 2024.06.17.596931.
 2. http://seqwell.com/wp-content/uploads/2025/11/seqWell_LongPlex_Plasmid_Protocol_20251103.pdf