

Comparison of a Transformational One-Step Library Preparation Method for High-Throughput, Multiplexed Sequencing

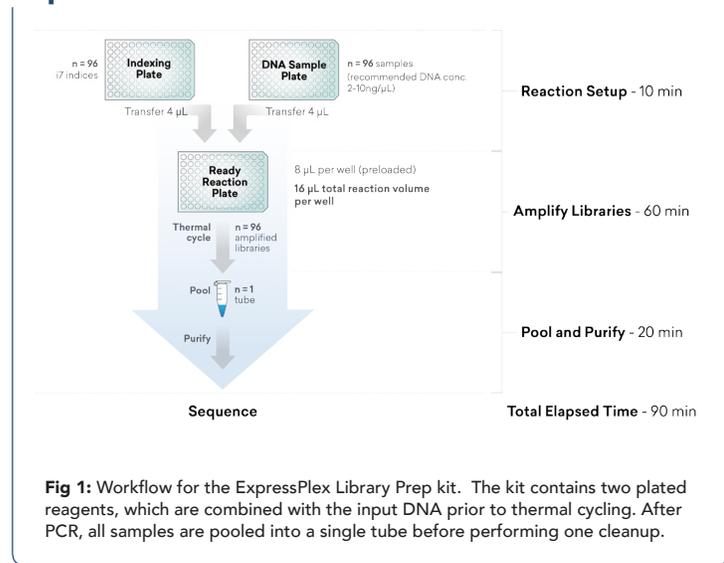
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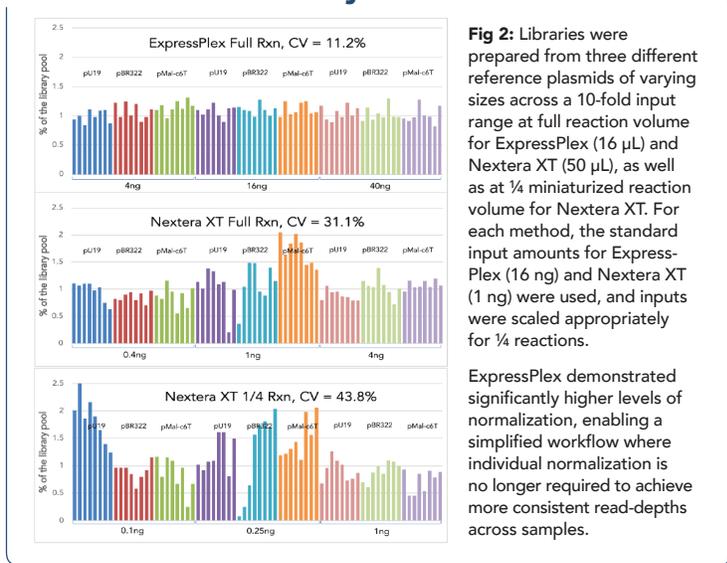
Introduction

As overall sequencing costs continue to decline, laboratories need a faster, more efficient library prep method to keep pace. In this poster, we describe a transformational new library prep technology from seqWell enabling barcoding and amplification of 8 – 384 dual-indexed libraries in 90 minutes in a “one-pot” reaction, while simultaneously auto-normalizing library read-count and insert size. The simplicity of the ExpressPlex™ workflow makes it uniquely well-suited for manual and automated library prep from plasmids and PCR products. Here, we compare workflows and general performance of ExpressPlex vs. other well-known library prep methods.

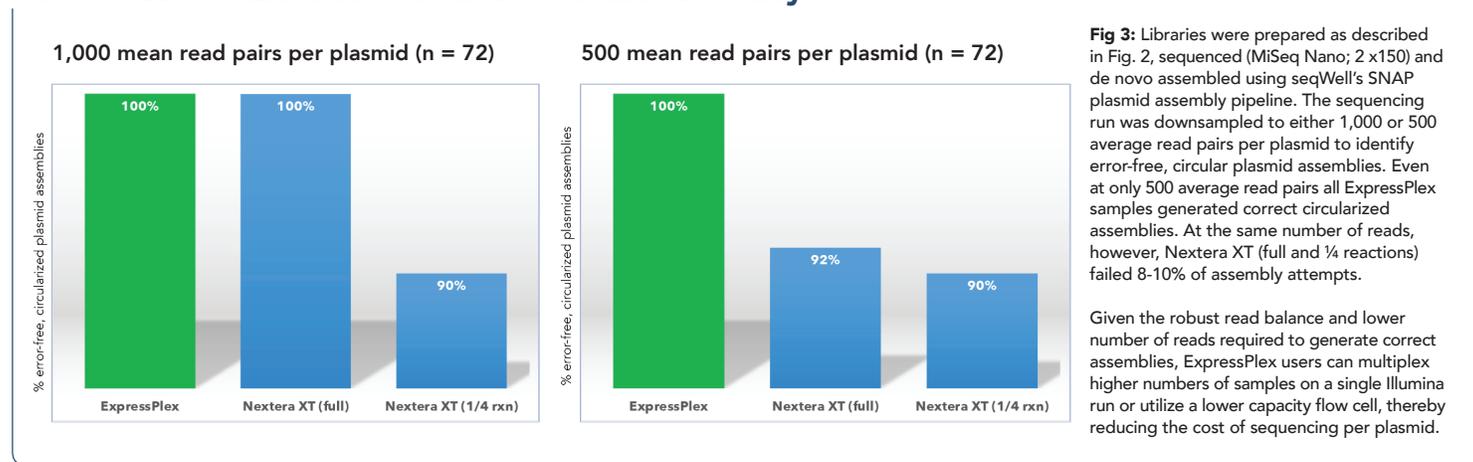
ExpressPlex™ Workflow



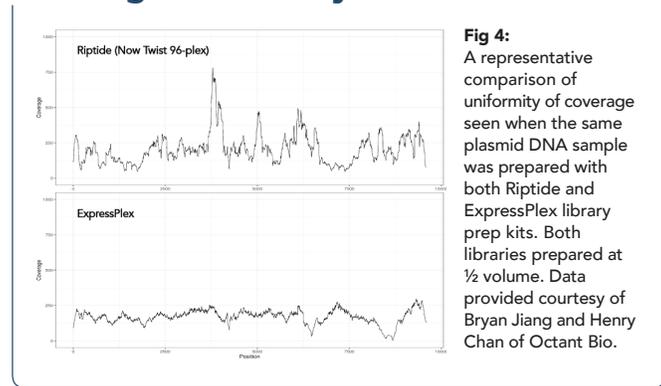
Read-Count Consistency



Success Rate of Error-Free de novo Plasmid Assembly



Coverage Uniformity



Conclusions

- seqWell has created a fast, simple, and robust library prep that works both in manual and automated workflows.
- ExpressPlex demonstrates better normalization of read-count across a range of input amounts, enabling users to deploy a global dilution strategy based on estimated plate concentration vs. individually normalizing all samples.
- ExpressPlex is more robust as measured by the number of read pairs required for error-free, full plasmid assembly.
- 1,536 ExpressPlex barcode combinations are available for highly multiplexed plasmid or amplicon sequencing.
- For questions, please contact sales@seqWell.com