**Optimization of illumina TruSeq Targeted RNA expression (TREx) library quality**


ABSTRACT

RNA-seq has become an essential tool in molecular research. Nevertheless, application of RNA-seq was limited by cost and technical difficulties. Illumina has introduced the cost effective and ease to handle Truseq Targeted RNA Sequencing. In this study, we present the requirements and the optimization procedure for this Truseq Targeted RNA sequencing on cell line. Total RNA was recommended as starting materials but it required optimization including additional purification step and adjusting the AMPure beads ratio to eliminate unwanted contaminants. This can be resolved by using PolyA-enriched mRNA as starting material. TREx is a useful assay to evaluate gene expression. Quality library of TREx can be prepared by adding multiple washing steps or changing input sample to mRNA.



**Keyword:** Illumina; Poly(A) mRNA; Targeted expression; TREx