Product Profile

QIAseq™ UPX 3' Targeted RNA Panel

For high-throughput, targeted gene expression using 3' targeted NGS

QIAseq Ultraplex (UPX) 3' Targeted RNA Panels enable high-throughput next-generation sequencing (NGS) of up to 1000 polyadenylated RNAs on Illumina® sequencers. QIAseq UPX Targeted RNA Panels are intended for library construction and analysis of single cells, cell pellets and ultralow amounts of purified RNA.

Benefits of QIAseq UPX 3' Targeted RNA Panels:

- Target up to 1000 genes using a cost-effective, time-saving single-tube library prep
- LNA-enhanced chemistry for increased accuracy, specificity and sensitivity
- Integrated unique molecular indexing (UMI) removes amplification bias
- Cell tagging and sample indexing enables simultaneous sequencing of up to 147,456 targeted libraries
- Cloud-based data analysis with the GeneGlobe Data Analysis Center

Innovative, optimized workflow

Single cells or isolated RNA are reverse transcribed and each RNA molecule is given a unique molecular index (UMI) and well-specific IDs are assigned (up to 384 wells; Cell IDs). Following reverse transcription, all cDNAs are combined, enabling simplified library construction steps to be performed in a single tube (Figures 1 and 2).

Figure 1. QIAseq UPX 3' Targeted RNA Panel workflow.

Target enrichment technology allows users to sequence specific genes of interest, which effectively increases sequencing depth and sample throughput, while minimizing cost. During subsequent amplification and library construction, up to 384 different library indices (Sample IDs) can be assigned. The combination of Cell IDs and Sample IDs enables up to 147,456 targeted libraries to be sequenced simultaneously. QIAseq UPX 3' Targeted RNA Panels define a new generation of high-throughput NGS technologies in QIAGEN's Sample to Insight workflow.

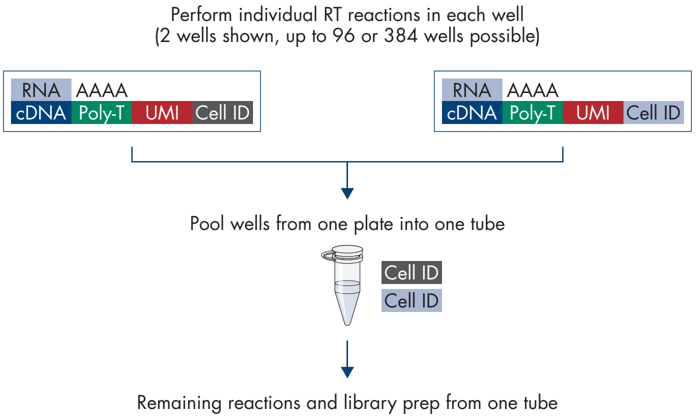

Figure 2. QIAseq UPX 3' Targeted RNA Panel handling. Individual reverse transcription reactions are performed for each sample that tag the cDNA with a unique Cell ID and each molecule with a UMI. Following reverse transcription, all wells for a plate, up to 96 or 384 respectively, can be pooled into a single tube. The remaining reactions and library prep associated with that plate are performed in a single tube.

GeneGlobe data analysis

QIAseq UPX cloud-based data analysis is available via the GeneGlobe Data Analysis Center (**www.qiagen.com/GeneGlobe**) and provides read alignments, UMI and sample de-multiplexing with final single-cell or low-input gene expression analysis.

Ordering Information

Product	Contents	Cat. no.
QIAseq UPX 3' Targeted RNA Panel (96)	For 3' targeted RNA sequencing of 96 cells, cell pellets or ultralow input RNA samples	333041
QIAseq UPX 3' Targeted RNA Panel (96-M)	For 3' targeted RNA sequencing of 4 x 96 cells, cell pellets or ultralow input RNA samples	333042
QIAseq UPX 3' Targeted RNA Panel (384)	For 3' targeted RNA sequencing of 384 cells, cell pellets or ultralow input RNA samples	333043

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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