Single-cell RNA-seq analysis: From Cell Sample to Insight

Single-cell RNA-seq analysis brings into focus the individual contribution of every cell, highlighting a specific biological response otherwise obscured when assessed in bulk. The most common bottleneck to single-cell analysis is the lack of easy-to-use methods to precisely isolate a single cell from a heterogeneous cell population without damaging the cell and dispensing into 96- or 384-well plates.

Combining the power of NanoCellect's WOLF® Cell Sorter with QIAGEN's QIAseq™ UPX 3' Transcriptome kit results in a powerful sample to insight workflow solution. The WOLF Cell Sorter and N1 Single-Cell dispenser is an aerosol-free, sterile, and disposable system that is easy-to-use for selection and sorting of cells in bulk or directly into 96- or 384-well plates. The WOLF allows users to leverage the power of flow cytometry analysis to identify, gate, and gently sort the desired cells into wells for RNA-seq analysis downstream.

Together the WOLF and the QIAseq Ultraplex (UPX) 3' Transcriptome Kit enables high-throughput next-generation sequencing (NGS) of polyadenylated RNAs from single cells on Illumina® sequencers.
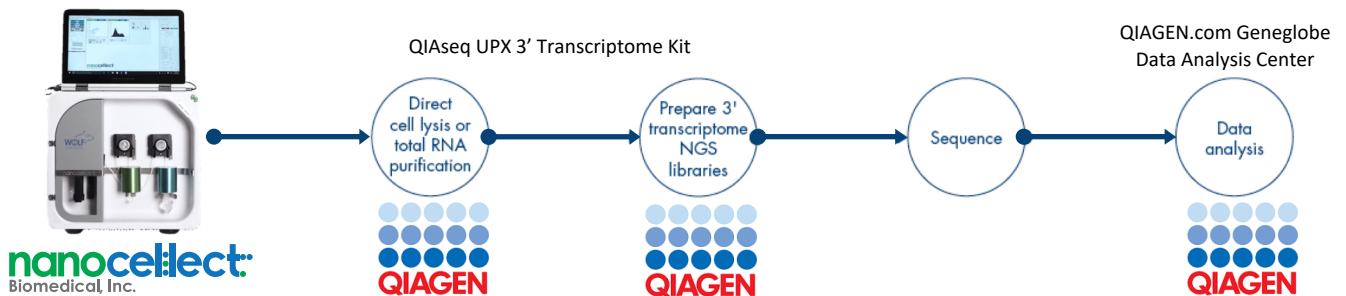

Single cells sorted and dispensed in 96-well plate

QIAseq UPX' Transcriptome single cell technology

Innovative, optimized workflow:

Starting with a suspended mixture of cells, the sample is first loaded onto the WOLF Cell Sorter where target cells are selected based on 5 optical flow cytometry parameters and then dispensed into 96-well QIAseq plates pre-loaded with cell lysis buffer. Single cells are first 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 with integrated template switching, all cDNAs are combined, enabling simplified library construction steps to be performed in a single tube.

QIAseq UPX 3' Transcriptome Kit

QIAGEN.com Geneglobe Data Analysis Center

Direct cell lysis or total RNA purification → Prepare 3' transcriptome NGS libraries → Sequence → Data analysis

Ordering Information

Product	Contents	Cat. no.
QIAseq UPX 3' Transcriptome Kit (96)	For 3' transcriptome library prep of 96 cells, cell pellets or ultra-low input RNA samples	333088
QIAseq UPX 3' Transcriptome Kit (96-M)	For 3' transcriptome library prep of 4 x 96 cells, cell pellets or ultralow input RNA samples	333089
QIAseq UPX 3' Transcriptome Kit (384)	For 3' transcriptome library prep of 384 cells, cell pellets or ultralow input RNA samples	333090

Ordering **www.qiagen.com/shop**　　　Technical Support **support.qiagen.com**　　　Website **www.qiagen.com**

The QIAseq UPX 3' Transcriptome Kit is intended for molecular biology applications. This product is not intended for the diagnosis, prevention or treatment of a disease.

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.

Ordering Information

Product	Contents	Cat. no.
WOLF Cell Sorter	WOLF Cell Sorter, WOLFViewer Software, Configured PC, Accessories, Installation, Training and 12 month warranty	517301-03
N1 Single Dispenser	N1 Single Cell 96 and 384-well Dispenser, Installation, Training and 12 month warranty	4510
Single Cell Cartridges	Single-Cell Dispensing, 20 pack, Sterile	15035

Product information **www.nanocellect.com/wolf-cell-sorter**　　　Website **www.nanocellect.com**

NanoCellect's WOLF® Cell SorterFor research use only. Not for diagnostic use