



NEGEDIA

Single-Cell RNAseq

Code NGD0100R
Code NGD0101R

Multicellular organisms, organs, and tissue microenvironments are composed of a diverse array of cell types and states that coexist simultaneously within the same space. While traditional bulk RNA sequencing provides valuable global gene expression data, it lacks the resolution to capture cellular heterogeneity and functional diversity at the single-cell level.

Single-cell RNA sequencing (scRNA-seq) overcomes this limitation by enabling gene expression analysis with single-cell precision, unlocking insights into cellular diversity, developmental processes, and gene regulatory networks. This technology is particularly powerful for studying heterogeneous microenvironments, such as cell cultures, tissues, and organs.

Negedia offers standardized single-cell RNA sequencing services powered by state-of-the-art **10x Genomics® Chromium™ technology**, ensuring high-quality data output.

AVAILABLE OPTIONS

Single-Cell
Gene Expression
(NGD0100R)

Estimated output per sample is = **200 million reads**.

Single-Cell
TCR + Gene Expression
(NGD0101R)

Estimated output per sample is = **200 million reads**.

OUR SERVICE INCLUDES



STARTING MATERIALS

SERVICE CODE

NGD0100R - NGD0101R

STARTING MATERIAL

Frozen Cell Suspension (1ml/ 100.000 cells)

QUALITY REQUIREMENTS

- Resuspension Buffer: Cryopreservation media (e.g., cell culture media with 10% DMSO, adjusted based on cell type).
- Cell Viability: Must be >80% and intact.

STORAGE & SHIPPING

- Storage: Liquid Nitrogen / -80°C.
- Shipping: on dry ice.
- Samples have to be sent in 2ml Cryo vials.
- Tubes of different size may not be used.

For low cells quantity please contact our Customer Service at service@negedia.com



APPLICATION NOTES

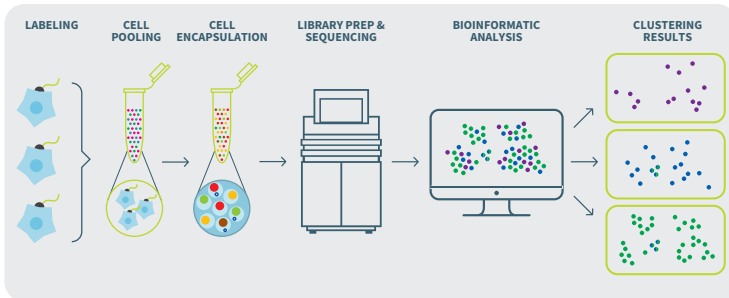
Single-Cell RNA-seq enables high-resolution gene expression analysis at the single-cell level, overcoming the limitations of bulk RNA sequencing. It allows the identification of cellular heterogeneity and biologically relevant differences within complex populations.

TECHNOLOGY

- **10x Genomics GEM System:** Uses **Gel Bead-in-Emulsion (GEM)** technology for efficient cell lysis, reverse transcription (RT), and library preparation.
- **High Throughput & Precision:** Droplet-based processing accelerates workflow and improves sequencing accuracy (Choi, 2020).

APPLICATIONS

- Identification of rare cell types
- Characterization of tissue and organ heterogeneity
- Immune profiling through **VDJ sequencing**



BIOINFORMATICS ANALYSIS

STANDARD BIOINFORMATIC ANALYSIS (INCLUDED IN NGD0100R - NGD0101R)



- FastQ files
- Quality report

ADVANCED BIOINFORMATIC ANALYSIS OPTIONAL FOR ADDITIONAL FEE (NGD0920R - NGD0921R)



II LEVEL

- Cleaning
- Mapping
- Counting per gene
- Deliverables:**
- BAM files
- Count matrices (csv file)
- Cluster counts (csv file)
- t-SNE Projection plots
- TAT 15 working days**

III LEVEL

- Cluster Annotation
- Cell cycle status
- Cell Type Proportion Analysis
- Deliverables:**
- Annotated umap
- TAT 5 working days**

SINGLE CELL TCR + GENE EXPRESSION II AND III LEVEL

- Cleaning
- Mapping
- Counting per gene
- Counting per VDJ
- Cluster Annotation
- Deliverables:**
- BAM files
- Count matrices (csv file)
- Cluster counts (csv file)
- t-SNE Projection plots
- Annotated umap
- TAT 15 working days**

DISCOVER OUR INTERACTIVE REPORT



SCAN THE QR CODE

NEGEDIA® is a cutting-edge NGS laboratory built on the Telethon Foundation's 30 years of expertise in rare genetic disease research. We are committed to making genomics accessible across the Life Sciences, providing high-precision sequencing and bioinformatics solutions for both research and clinical applications.

➤ **Clinical Services:** Supporting laboratories, clinics, and hospitals in leveraging NGS for clinical research and diagnostic advancements.

➤ **Research Services:** Supporting research institutes and universities at every stage, from experimental planning to advanced bioinformatics analysis.

For more information or to discuss a project, contact us at info@negedia.com

GENOMICS AND BEYOND



CERTIFIED UNI EN ISO 9001:2015

