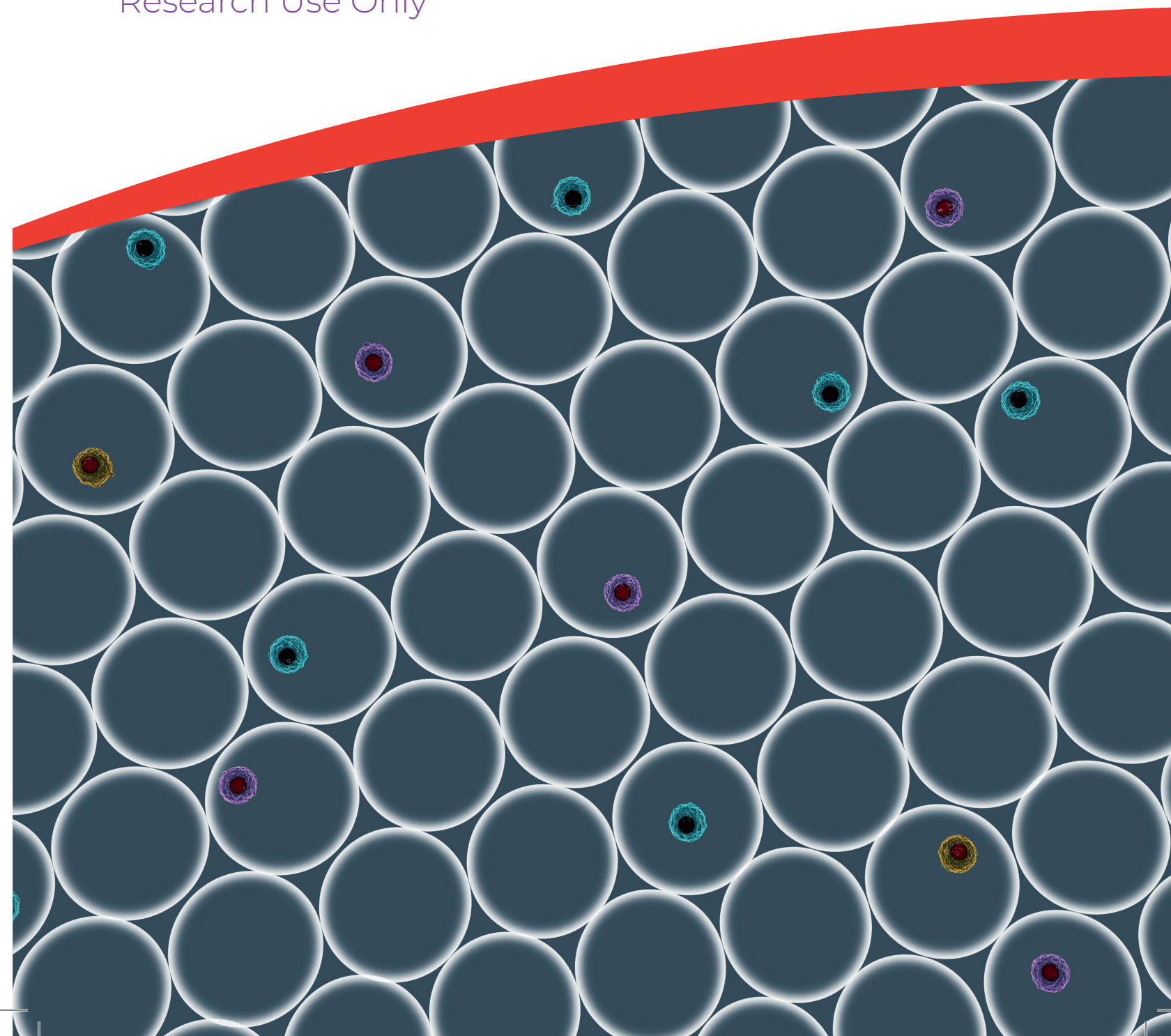


Single Cell 3' RNA Sequencing Service

Research Use Only



Almac Single Cell 3' RNA Sequencing Service

A Next Generation Sequencing (NGS) solution which uses the 10X Genomics Chromium X platform and Next GEM Single Cell 3' workflow to generate RNA-seq data at the cellular level from cell suspension stored in Cryo-preservative. The service includes a scalable bioinformatic pipeline underpinned by 10X Genomics Cell Ranger software enabling comprehensive QC and single cell gene expression estimation. Optional custom bioinformatics solutions are also offered such as cell type identification, differential expression analysis between cell types and pathway analysis.

Platform	
Intended Use	Research Use Only (RUO) for biomarker discovery and retrospective clinical investigation.
Technology	NGS Technology - Illumina sequencing platforms.
Type	Core laboratory service offering single cell 3' RNA-seq data generation with QC and secondary analysis.
Sample requirements	
Specimen type	Cells suspended in cryopreservative.
Input material requirements	500 to 10,000 cells* <i>*Depending on cell type and analysis required.</i>
Workflow	
Library preparation	10X Genomics Chromium Next GEM Single Cell 3' v3.1 Dual index.
Platform performance	
Coverage	≥ 20,000 reads per cell*. <i>*Tailored depending on analysis requirement.</i>
Read length	90bp.
Quality control (QC)	
QC assessment	Comprehensive QC assessment of data including: · Sample and library QC: cell viability, cell input, library preparation quality & quantity. · Sequencing run QC. · Post-sequencing and alignment QC.
Turnaround time	
TAT	For batch retrospective testing - turnaround time (TAT) agreed on a per project basis.
Reporting	
Raw data	FASTQ files (BAM files also available on request).
QC Report	Excel compatible QC report and interactive QC web summary report.
Secondary Analysis	· Standard Cell Ranger 3' Gene Expression pipeline outputs (including a gene-by-cell count matrix). · A CLOUPE file containing expression data for all cells, a tSNE projection split into groups by two methods and some initial differential expression analysis (which can be uploaded to Loupe Browser for data exploration).
Optional bioinformatics services	Custom downstream analysis and reporting can be facilitated by the Almac Diagnostic Services Bioinformatics Team if required at an additional cost. This can include but not restricted to: cell type identification, differential expression analysis, and pathway analysis.

Key benefits:

- **Raw Sequence data** delivered in FASTQ format, compatible with most bioinformatics pipelines for processing and interpreting single cell RNA Seq data.
- **Interactive QC report** enables rapid and comprehensive assessment of sequencing, mapping, and cell metrics.
- **Optional bioinformatics services** including fully customised downstream analysis and reporting.

Almac Diagnostics Services Expertise:

- More than 20 years' experience in working with challenging sample types.
- High quality service with robust quality control and data assurance.
- Data analysis and interpretation services available for customised investigation of data.
- Your study designed, managed & performed by PhD level scientists in our CLIA & CAP accredited laboratory.

For Research Use Only.

Not for use in diagnostic procedures.

Almac Diagnostic Services is a 10X Genomics Certified Service Provider



almacgroup.com

Find out more:

Visit our website almacgroup.com/diagnostics

almacgroup.com

Get in touch

UK

diagnostics@almacgroup.com
+44 28 3833 7575

US

diagnostics@almacgroup.com
+1 (919) 479 8850

diagnostics@almacgroup.com