AVANCE
BIOSCIENCES


# 10X Chromium X Single Cell Sequencing Services

As part of our investment in advanced sequencing, Avance Biosciences has added the 10x Genomics Chromium X platform to our Advanced Sequencing Center . This technology enables high-resolution single-cell gene expression studies , supporting applications such as immuno-oncology, stem cell research, and cell and gene therapy. Integrated with our CGMP/GLP-compliant NGS workflows, it enhances our ability to characterize tissue and cell heterogeneity, identify rare cell types, and dissect molecular mechanisms cell by cell for complex biologics development.

## Our Expertise

Our experienced scientists are highly skilled in sample preparation, library construction, and data analysis for single-cell RNA-seq, ATAC-seq, and multi-omic assays. We understand the unique challenges of single-cell workflows and work closely with our clients to optimize experimental design, maximize data quality, and deliver actionable insights. Our commitment to technical excellence and personalized support makes us a trusted partner for single-cell research and development.

## Single Cell Sequencing Services

| Primary Capability | Major Applications |
|---|---|
| Single Cell RNA-seq (3’ and 5’) | - Profile gene expression at single-cell resolution<br>- Identify cell types, states, and drug response<br>- Track transgene expression and engineered cell fate (e.g., CAR-T)<br>- Support MoA studies, biomarker discovery, and potency assessment |
| Single Cell ATAC-seq | - Map chromatin accessibility and regulatory element activity<br>- Uncover epigenetic changes linked to therapy, differentiation, or cell engineering<br>- Study transcription factor networks and regulatory programs |

AVANCE BIOSCIENCES

## Single Cell Sequencing Services (continued)

| Multiomic Capability | Major Applications |
|---|---|
| Single Cell V(D)J Sequencing with 5' Gene Expression | - Characterize TCR/BCR repertoires and clonal expansion<br>- Monitor engineered immune cell persistence and diversity (e.g., CAR-T, TCR-T)<br>- Assess host immune response, immunogenicity, and minimal residual disease |
| Multiome (RNA + ATAC) | - Integrate transcriptomic and epigenomic information from the same cell<br>- Elucidate gene regulatory mechanisms driving cell identity and therapeutic function<br>- Optimize vector design, transgene durability, and cell therapy performance |
| Spatial Transcriptomics (Visium) Cell Surface Protein with 3' or 5' Gene Expression | - Identify surface protein markers<br>- Categorize cell types<br>- Explore cell signaling and interactions |
| CRISPR Screening with 5' Gene Expression | - Perform pooled gene perturbation with single-cell resolution<br>- Identify gene targets, resistance pathways, or synthetic lethal interactions<br>- Validate genome editing strategies and assess safety/function of edits |

Scan to learn more.