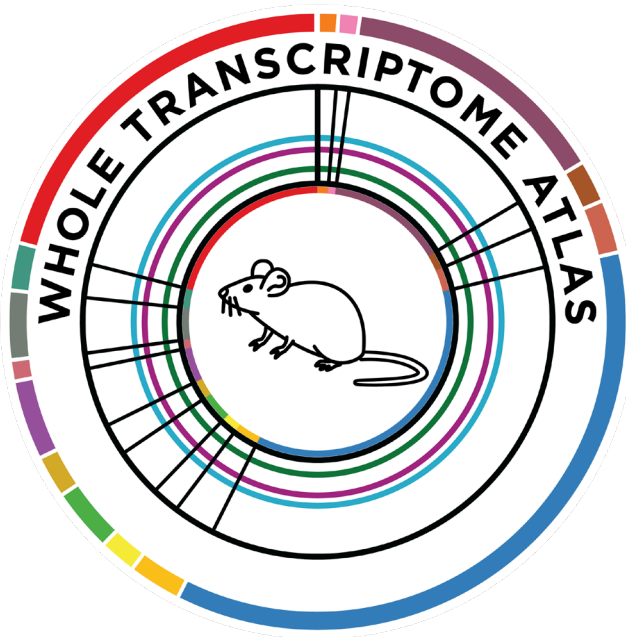




# GeoMx<sup>®</sup> Mouse Whole Transcriptome Atlas



## Product Highlights

- **Whole Transcriptome coverage** across all mouse strains
- **Superior sensitivity** detects more genes per sample and quantitates low, medium and high expressed genes
- **Robust, reproducible results** across sample types including FFPE, Frozen Fresh, Fixed Frozen, and TMAs
- **Efficiently compare data across multiple samples** to identify changes in biologically relevant compartments or cell populations
- **Standardized workflows** using proven techniques without any specialized mounting or optimization
- **Minimal sequencing** 100M reads/sample for 12 regions

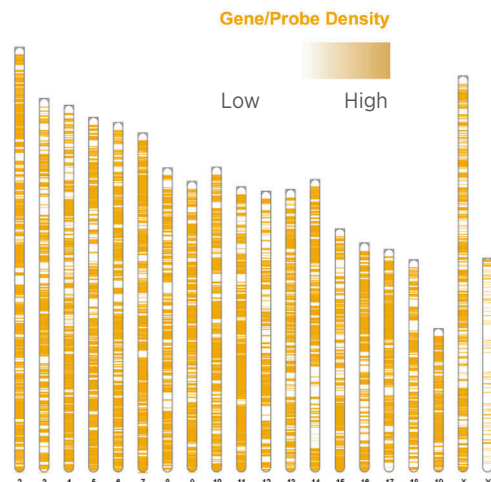
## Spatially Resolved Mouse Transcriptome

Mouse models serve a critical role in understanding developmental biology, disease onset, progression, and treatment. Tissue heterogeneity, however, confounds the results from many mouse transcriptome studies based on bulk or single cell RNA-seq data. Using the GeoMx Mouse Whole Transcriptome Assay (MuWTA), one can apply spatial transcriptomics to reveal the tissue architecture and underlying function in genetically modified mouse models.

## Designed for All Major Mouse Strains

The Mouse Genome Informatics (MGI) forms the foundation for the GeoMx Mouse Whole Transcriptome Atlas probe design for protein coding genes and transgenes. By combining MGI and RefSeq information we designed probes that are compatible across all mouse strains including NOD/ShiLt, BALB/c, and C57BL/6N. Explore the design of Mouse WTA in the UCSD genome browser session.

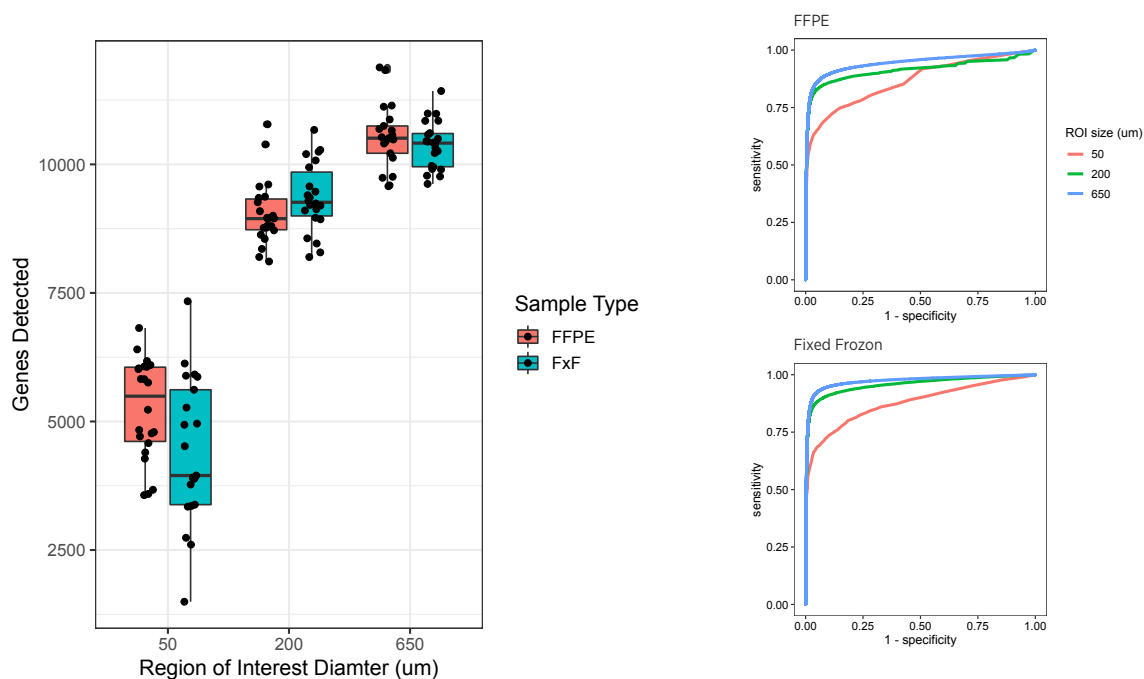
Browse the [Mouse Whole Transcriptome Atlas](#)



Karyogram illustrating the density of genes in the mouse genome. The transcripts from these genes make up the mouse transcriptome and are measured by GeoMx MuWTA.

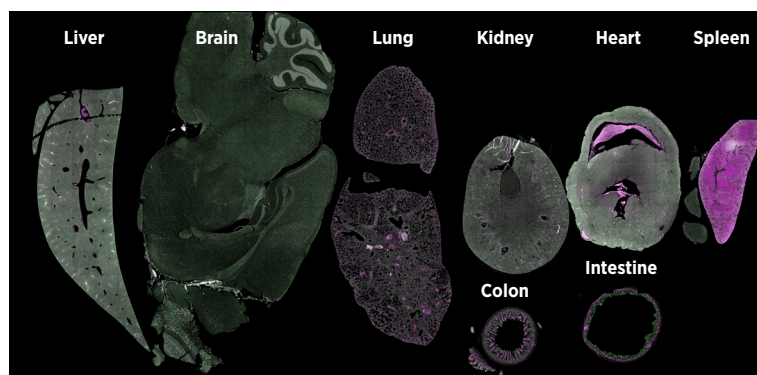
## Superior Sensitivity to Detect More Genes across a Broad Range of Expression Levels.

The GeoMx WTA offers high sensitivity and specificity with thousands of genes detectable across region of interest (ROI) of various sizes. In a sensitivity analysis in FFPE and Fixed Frozen (FxF) cell pellet arrays, over 5000 genes were detected above the limit of quantification.

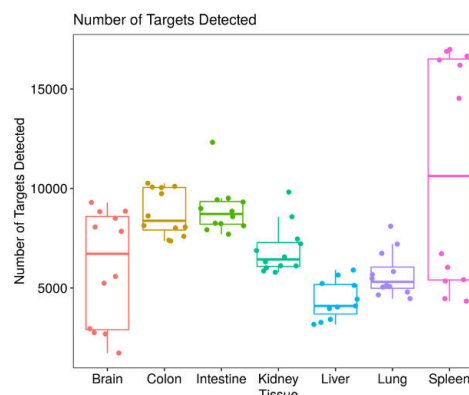


## Built for Large and Diverse Research Studies

GeoMx Digital Spatial Profiler (GeoMx DSP) integrates standard histology workflows and is proven to work on various sample types including Fresh Frozen, Fixed Frozen, and Formalin-Fixed Paraffin Embedded (FFPE) tissue sections on standard microscope slides. Furthermore, tissue microarrays, organ arrays and tissues from different mice can all be visualized and studied on a single slide. With throughputs of 4-8 slides per day, MuWTA enables researchers to gather statistically meaningful insight from your pre-clinical studies and genetically modified mouse model studies with large cohort analysis.

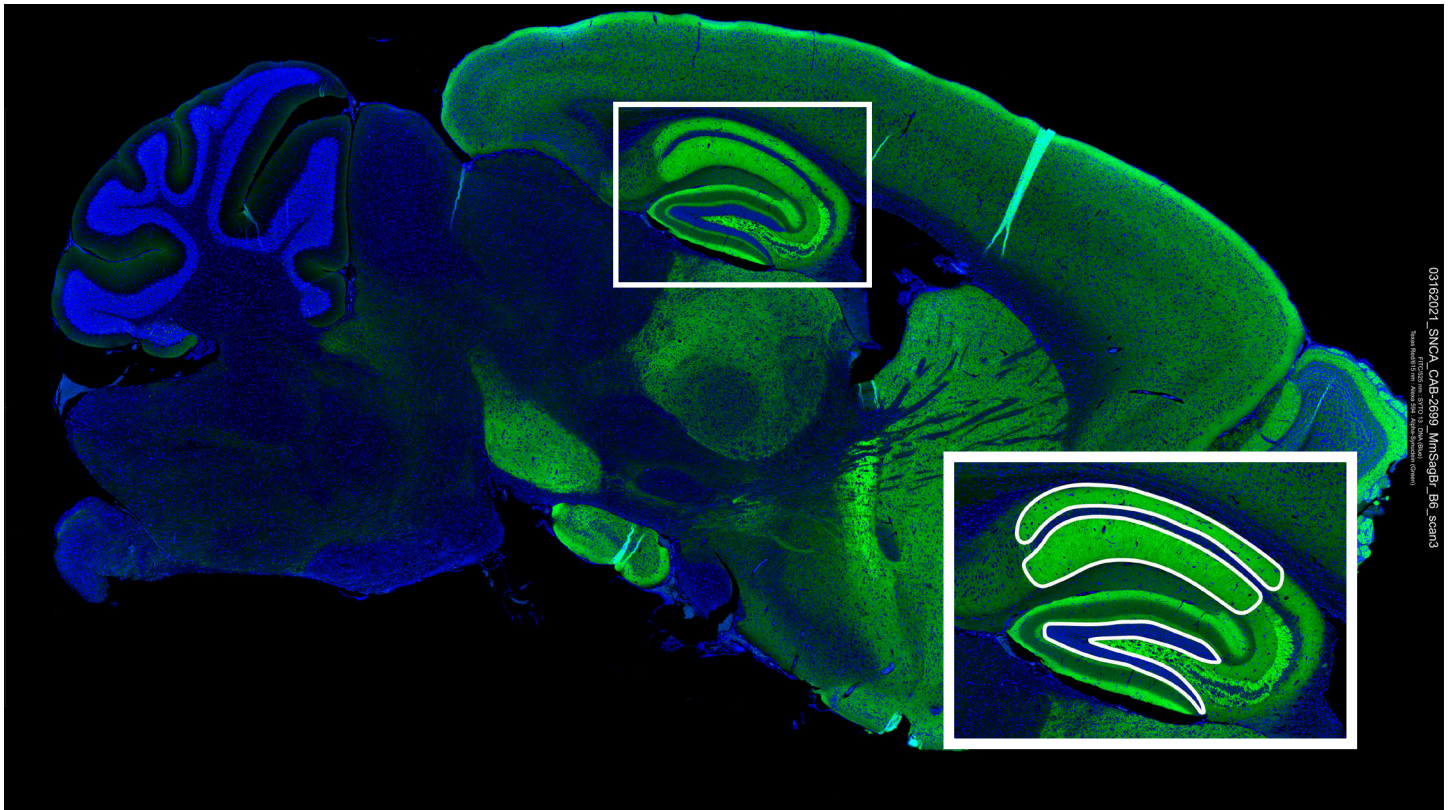


DSP image of eight-organ array from an adult BALB/c mouse



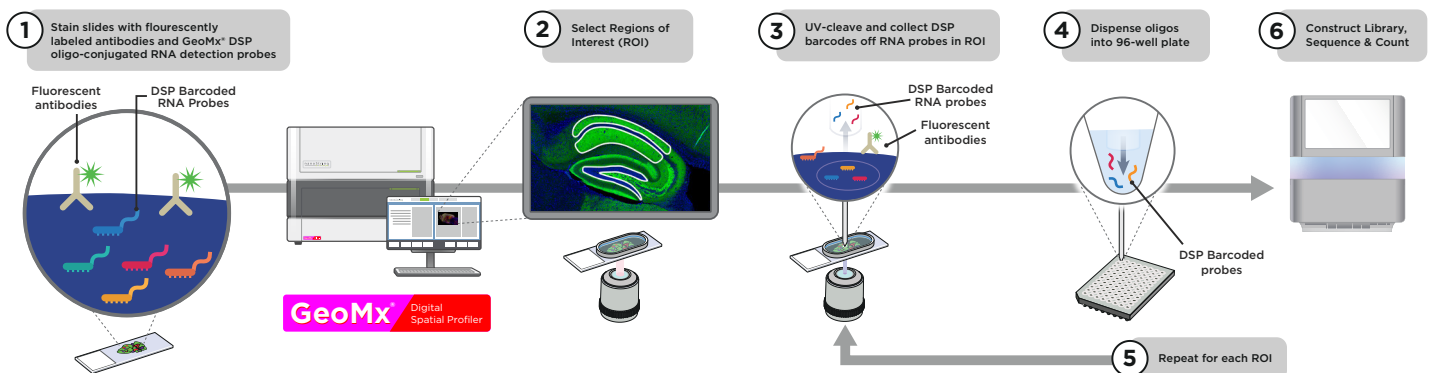
Number of genes detected in different organ types

The GeoMx DSP allows you to focus in on important anatomical and functionally-distinct tissue structures and cell types and integrate spatial transcriptomic data across all your mouse experiments and not just across a few select samples. Gain significant insight through large cohort analysis that can reveal variation by treatment, genetics, organ, anatomical feature, and tissue compartment.



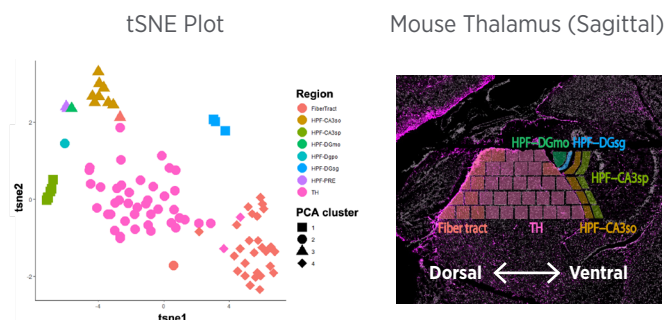
This sagittal section of a normal adult mouse brain, imaged on the GeoMx Digital Spatial Profiler, is stained for neuronal protein alpha-synuclein (green) and DNA (blue) to illuminate intricate morphological structures for further expression profiling. Alpha-synuclein plays a crucial role in synaptic vesicle trafficking and neurotransmitter release. Accumulation and aggregation of alpha-synuclein is a hallmark of Parkinson's disease and a therapeutic target of interest.

## GeoMx® Digital Spatial Profiling Workflow





GeoMx software uniquely combines whole tissue visualization at single cell resolution with advanced ROI selection to enable comprehensive spatial profiling of tissue sections. The fully integrated workflow tracks image data to corresponding profiling data, allowing users to easily go from data collection to data analysis and to interact with either data type in real time. Analysis and visualization can be extended through the integration of R-scripts into the Data Analysis Suite which are available on GeoScript™ Hub, or through export of the raw or normalized data to external tools including our GeoMxTools R package available in Bioconductor™.



GeoMx Whole Transcriptome Atlas			
Product	Product Description	Quantity	Catalog Number
GeoMx Mouse Whole Transcriptome Atlas Mouse RNA for Illumina Systems	RNA Probe set that targets 21,000+ transcripts for mouse protein coding genes plus ERCC negative controls to profile the whole transcriptome. Excludes uninformative high expressing targets such as ribosomal subunits. Includes RNA probes designed for Illumina NGS readout with the Seq Code library prep.	4 Slides	GMX-RNA-NGS-MsWTA-4
GeoMx Human Whole Transcriptome Atlas Human RNA for Illumina Systems	RNA Probe set that targets 18,000+ transcripts for human protein coding genes plus ERCC negative controls to profile the whole transcriptome. Excludes uninformative high expressing targets such as ribosomal subunits. Includes RNA probes designed for Illumina NGS readout with the Seq Code library prep.	4 Slides	GMX-RNA-NGS-HuWTA-4
GeoMx Morphology Kits			
Product	Product Description	Quantity	Catalog Number
GeoMx Solid Tumor TME Morphology Kit <i>Human RNA Compatible</i>	Morphology kit for visualization of human solid tumors and the tumor microenvironment. For use with RNA assays. Includes fluorescent antibodies against Pan-CK, CD45, and a nuclear stain.	12 slides	GMX-RNA-MORPH-HST-12
GeoMx Melanoma TME Morphology Kit <i>Human RNA Compatible</i>	Morphology kit for visualization of human melanoma and the tumor microenvironment. For use with RNA assays. Includes fluorescent antibodies against S100B/Pmel17, CD45, and a nuclear stain.	12 slides	GMX-RNA-MORPH-HMEL-12
Additional Assay Reagents			
Product	Product Description	Quantity	Catalog Number
GeoMx Seq Code Pack <i>Compatible with Illumina Systems</i>	NGS readout reagents for GeoMx DSP RNA and protein analysis. Includes two Seq Code primer plates (choice of A&B, C&D, E&F, or G&H) and two universal enzyme master mixes.	192 AOI	GMX-NGS-SEQ-[XX]
GeoMx RNA Slide Prep Kit for FFPE	Sample prep reagents for GeoMx DSP RNA analysis. Includes Buffer W, Buffer S, and Buffer R.	12 slides	GMX-PREP-RNA-FFPE-12
GeoMx DSP Collection Plate	Barcoded collection plates for use on the GeoMx DSP. Required for AOI tracking. Kit includes 12 plates covering 1,152 AOI.	1 Pack	GMX-DSP-COLL-PLT
GeoMx DSP Instrument Buffer Kit	Buffer kit for the GeoMx DSP. Includes Buffer S and Buffer H. Sufficient for ~48 samples with ~18 AOI each. Volume requirements may vary based on experimental design.	1 Kit	GMX-DSP-BUFF-KIT

Learn more about the GeoMx Mouse Whole Transcriptome Atlas, visit [nanosttring.com/GeoMxMouseWTA](https://nanosttring.com/GeoMxMouseWTA)

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