

GeoMx® Discovery Proteome Atlas

More biology. More discovery.

The GeoMx Discovery Proteome Atlas (DPA) is the highest-plex, commercially available antibody-based spatial proteomics assay, investigating the expression of over 1200 proteins with single-cell resolution. Designed for unprecedented translational discovery with the GeoMx Digital Spatial Profiler (DSP), this curated selection of 1200+ pre-validated human targets spans key cell signaling and disease pathways. Identify new biomarker and drug target candidates by quantifying more proteins than ever before—within your existing GeoMx workflow.

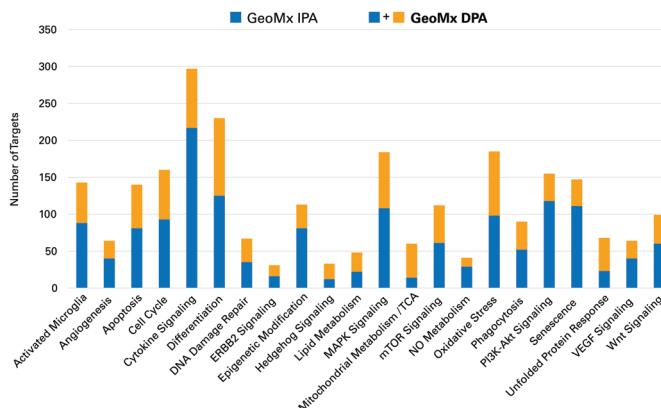


Product Highlights

- Targeting 1200+ human biomarkers expressed in 40+ tissues
- Single-cell spatial resolution
- Integrates with the GeoMx Whole Transcriptome Atlas (WTA) for same-sample multiomics
- Customizable by adding up to 40 additional protein markers
- Covers 130+ post-translational modifications

Empower Biomarker Discovery

Built as an expansion of the GeoMx IO Proteome Atlas (IPA), GeoMx DPA now enables spatial resolution of markers covering 120+ disease-relevant annotations, 29 functional annotations, and 130+ post-translational modifications.



Representative set of the 120+ biological process annotations highlighting the expanded coverage of GeoMx DPA.

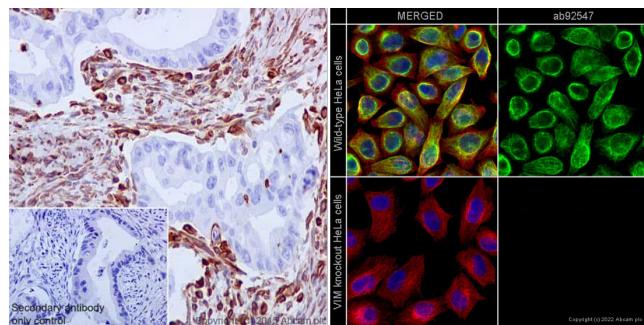
Post-translational Modifications	IPA	DPA
Phosphorylation	64	118
Methylation (mono)	1	2
Methylation (di)	2	2
Methylation (tri)	3	3
Acetylation	8	9
Ubiquitination	0	3
Total	78	137

GeoMx DPA covers more post-translational modifications than the original IPA panel.

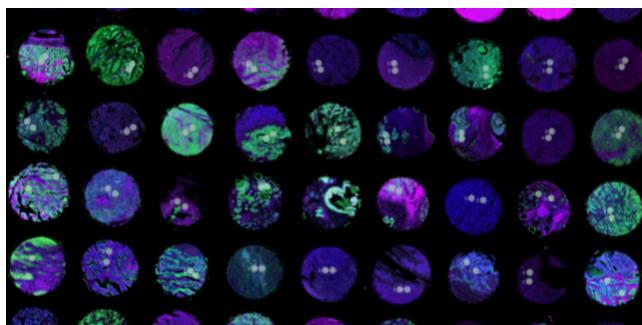
Validated and Translationally Ready

Each antibody clone is sourced from Abcam's IHC-validated collection and further optimized for spatial profiling, giving you a straightforward path to verify and validate biomarker candidates downstream of GeoMX DSP. Paired with high-throughput, regionally focused sequencing readout, GeoMX DPA maximizes data yield per sample, helping researchers conserve tissue while accelerating discovery.

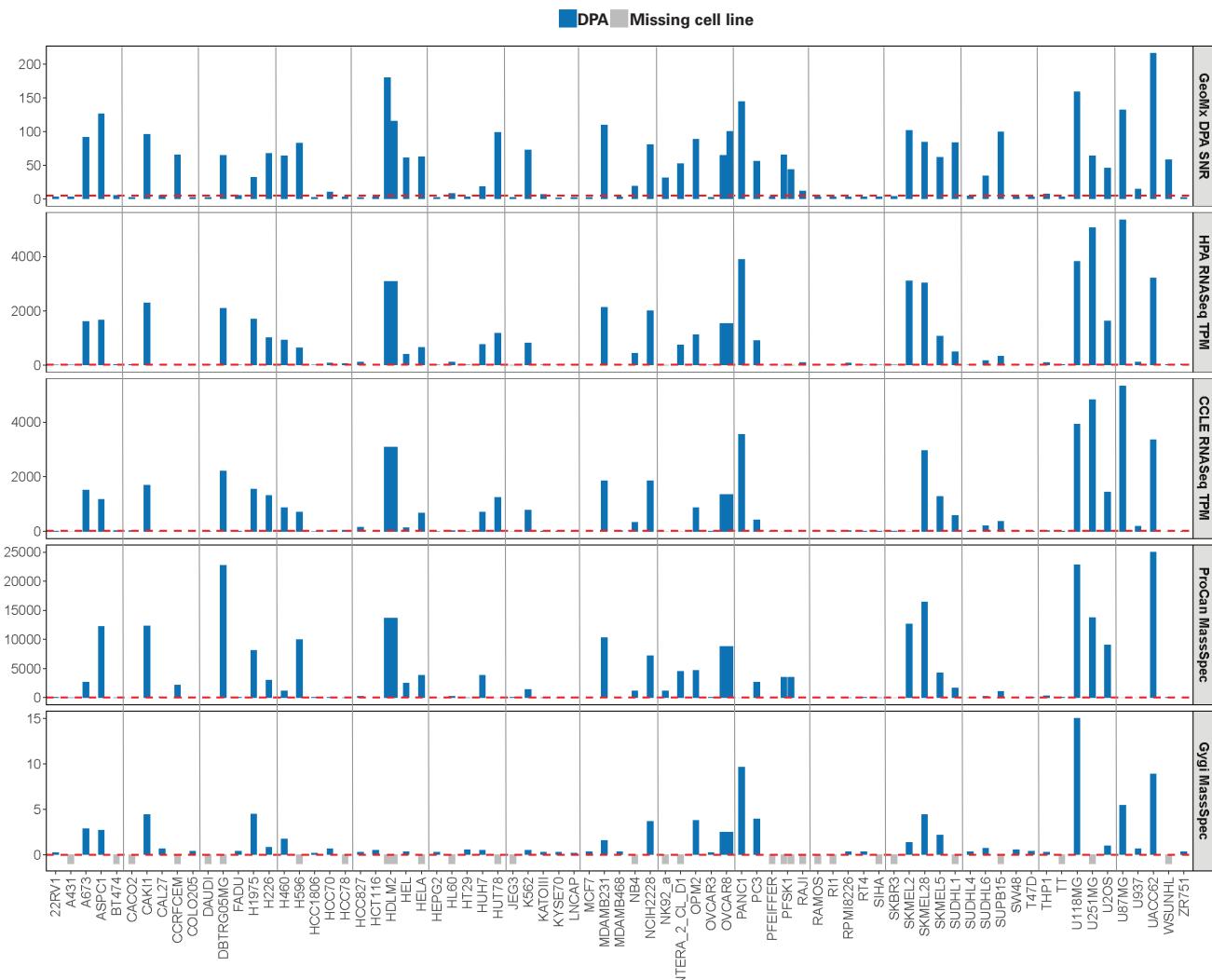
Single-plex Validation



Multiplex Validation



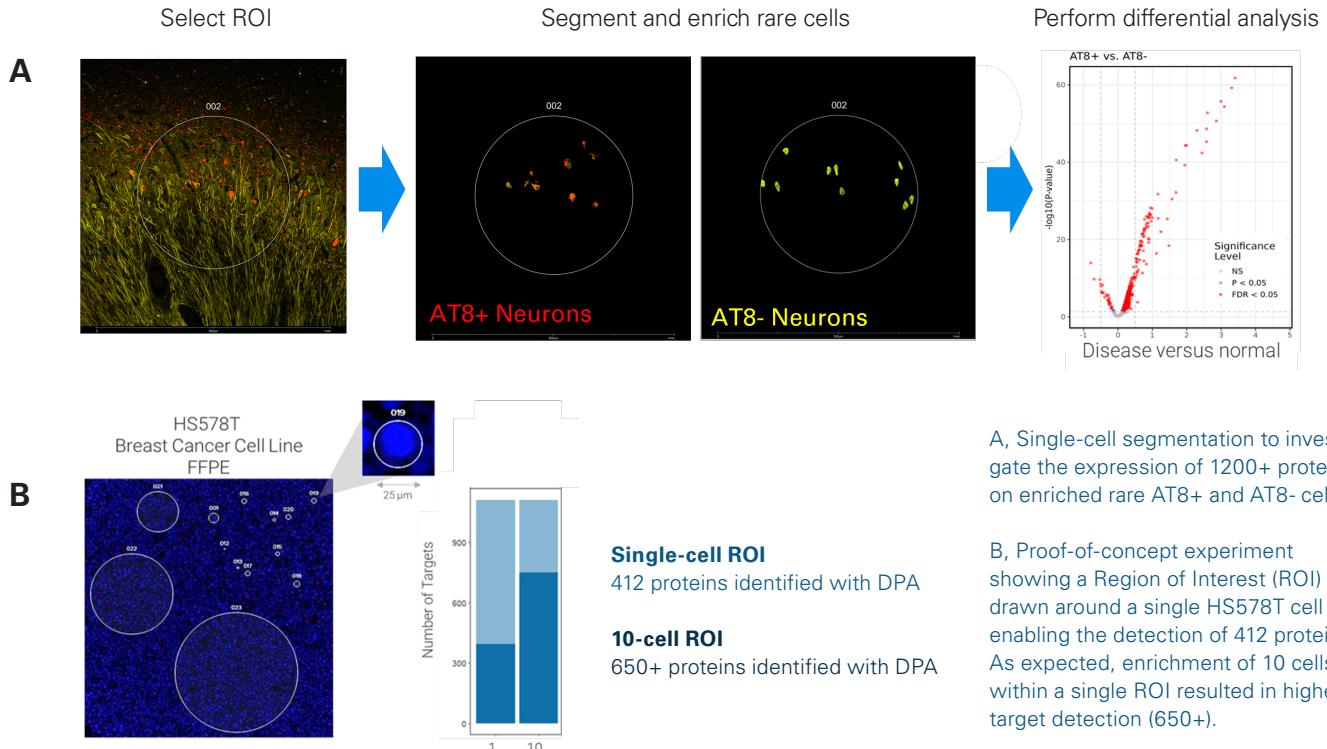
Example workflow showing antibody validation first at single-plex resolution, then confirmed in multiplex format across multiple tissue types.



Representative validation plot showing antibody signal across cell lines compared with RNA-seq and mass spectrometry datasets, confirming target-specific expression patterns.

Unmatched Protein Plex at the Single-Cell Level

Use GeoMx DPA to spatially resolve proteins ranging from tumor niches to rare cell populations to single cells.



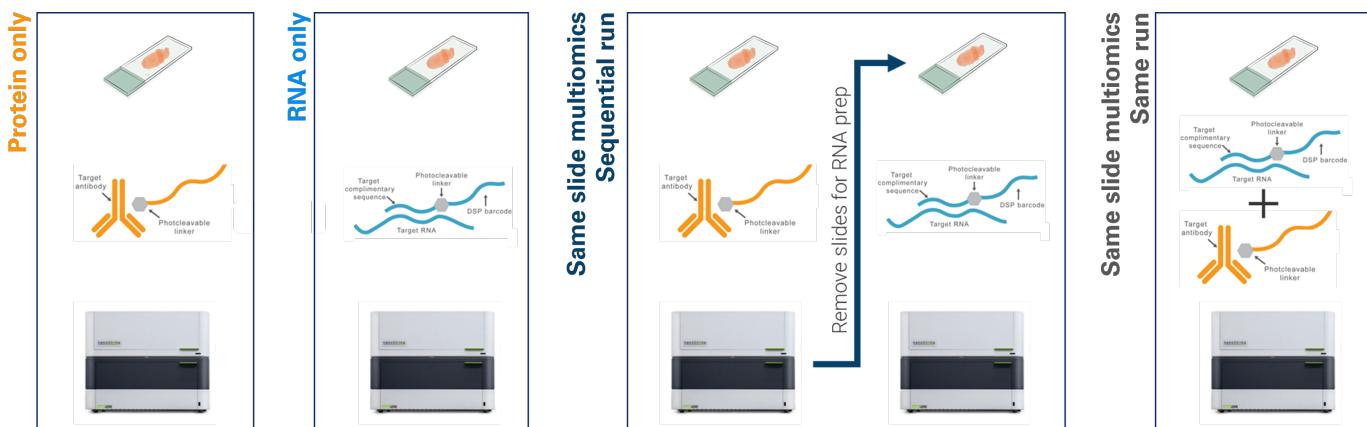
A, Single-cell segmentation to investigate the expression of 1200+ proteins on enriched rare AT8+ and AT8- cells.

B, Proof-of-concept experiment showing a Region of Interest (ROI) drawn around a single HS578T cell enabling the detection of 412 proteins. As expected, enrichment of 10 cells within a single ROI resulted in higher target detection (650+).

Enable Spatial Multiomics

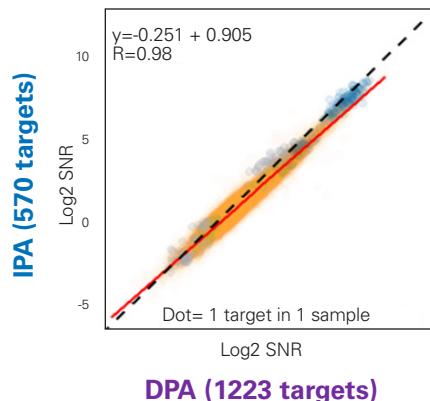
Combine GeoMx DPA with GeoMx Whole Transcriptome Atlas (WTA) to profile 1200+ proteins and 18,000+ RNAs to enable cross-modality biomarker discovery within the same region of interest. Choose RNA-only or protein-only workflows, or run multiomics on the same slide either sequentially or in the same run.

GeoMx Workflows



Scalable Performance

The GeoMx protein assay technology is highly scalable. Signal-to-noise comparison across matched targets reveals a strong correlation, even with the addition of over 650 more targets, demonstrating preserved assay performance with expanded proteomic coverage.



Ordering Information

Product	Product Description	Quantity	Catalog Number
GeoMx Discovery Proteome Atlas	1 aliquot of Human Protein Core (10-plex Controls), 1 aliquot of Human IO Proteome Atlas (570+ plex panel) and 1 aliquot of Human Neural Proteome Atlas (650+ plex panel) for NGS readout	4 slides	121300163
GeoMx Pro Code Pack: Z, Y	NGS readout reagents for GeoMx DSP Protein analysis. Includes Pro Code Z & Y UDI primer plates, and enzyme master mix for each plate.	2 plates, 190 AOI	121400207
GeoMx DSP Collection Plate	Barcoded collection plates for use on the GeoMx DSP. Required for AOI tracking.	4 plates, 384 AOI	100473
GeoMx DSP Instrument Buffer Kit	Instrument buffer kit for GeoMx DSP experiments.	24 slides, 12 AOI/slides	100474
GeoMx Protein Slide Prep Kit	Slide prep kit for GeoMx Protein experiments.	12 slides	121300312
GeoMx Solid Tumor TME Morphology Kit	Morphology kit for visualization of human solid tumors and the tumor microenvironment. For use with protein assays. Includes fluorescent antibodies against Pan-CK, CD45, and a nuclear stain.	12 slides	121300301

For more information, please visit nanostring.com/GeoMxDPA

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