

Reveal Single-Cell Insights in Spatial Context with RNAscope™ ISH Assays.

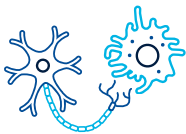
Trusted by top single-cell researchers around the world, RNAscope ISH technology enables visualization of novel and rare cell types and their activation states at sub-cellular resolution.

RNAscope Single-Cell Spatial Applications



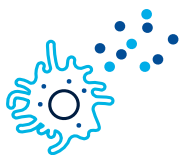
Spatial Mapping

Validate the presence, abundance, and spatial localization of novel cell subtypes and cell markers.



Cellular Dynamics

Identify meaningful changes in cell phenotypes and cell-cell interactions in human pathology and animal models.



Activation States

Visualize changes in single-cell function including initiation of signaling pathways and transcriptional activation.

RNAscope Highlights

Unmatched Spatial Precision.

Accurately detect RNA expression at single-molecule sensitivity and sub-cellular resolution.

Visualize and Quantify any RNA.

Visualize just the genes you want. Select from mRNAs, ncRNAs, splice variants, reporters, transgenes and more.

True Multiomic Flexibility.

Detect RNA and protein biomarkers on the same section for a comprehensive view of single-cell phenotype and function.

Characterize any Organism or Tissue.

Easily obtain RNA probes for any living species and utilize proven protocols across a wide range of tissues including archival FFPE samples.

Single-Cell Spatial Workflow

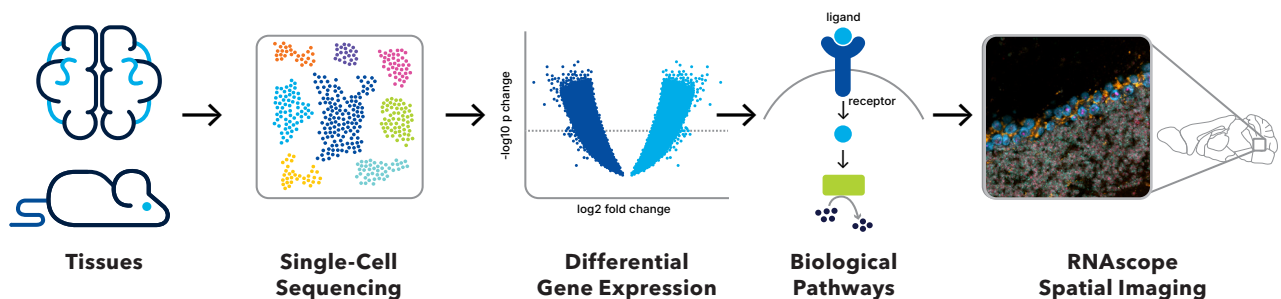


Figure 1. Spatial characterization of single-cell seq-identified phenotypes. Data from mouse brain single cell sequencing followed by RNAscope validation.

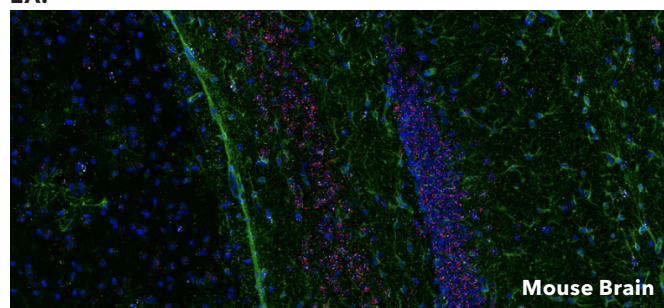
Featured Fluorescent RNAscope™ Spatial Assays

	RNAscope™ Multiplex v2	RNAscope™ HiPlex v2
Target RNAs	mRNA, lncRNA, viruses, transgenes, vectors and engineered cells	
RNA Plex	Up to 4-Plex for FFPE, fixed frozen, or fresh frozen samples	Up to 12-Plex for FFPE samples Up to 48-Plex for fixed and fresh frozen samples

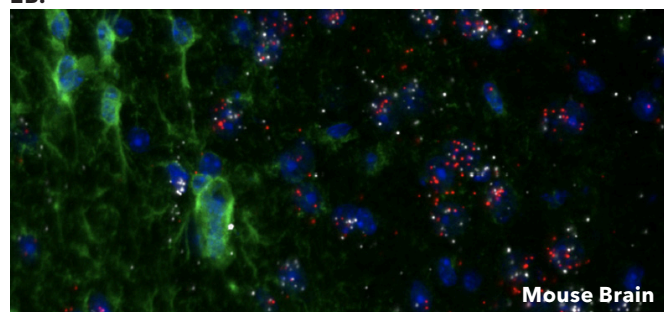
For information on more RNAscope assays visit ACDbio.com.

Advance Neuroscience

2A.



2B.

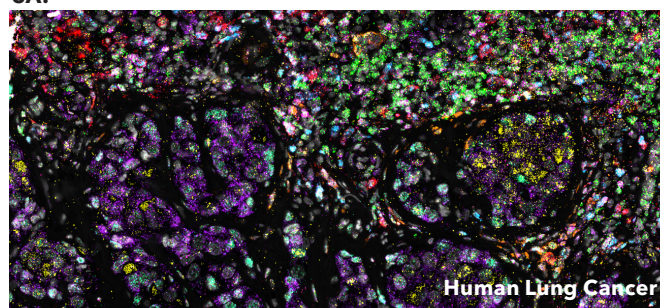


● Gfap ● RbFox ○ Aif1

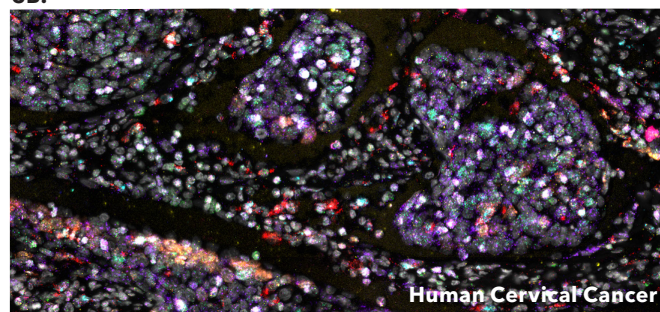
Figure 2. Co-detection of GFAP protein with RbFox3 and Aif1 RNA in mouse brain using RNAscope Multiplex v2 assay. Three marker panel. GFAP antibody (green 520) with RbFox3 (red 570) and Aif1 (white 650) RNA markers. Images depicted at (A) 20x and (B) 80x. Nuclei are counter-stained with DAPI.

Interrogate Cancer

3A.



3B.



● CD3 ● CD8 ● IFNG ● CD68 ● CD163 ● ARG1 ● CCL22
● CXCL10 ● VEGF ● HIF1A ● PD1 ● PDL1

Figure 3. Profiling different cell types within the TME using RNAscope HiPlex v2 assay. Twelve target specific marker probes were used to detect immune cells, tumor cells, chemokines and cytokines in (A) lung cancer and (B) cervical cancer. Nuclei are counter-stained with DAPI.

Getting Started is Easy

Easy Probe Selection

Select just the genes you want from an extensive online catalog and custom design services.

No Spatial Instrument Required

Get results quickly using RNAscope manual kits and your own fluorescent microscope. Easily scale with automated protocols.

Expert Technical Support

Experienced technical specialists in RNA spatial imaging will help you get up and running quickly.

Publication Summary

See how researchers are using RNAscope to reveal new single-cell spatial insights across a wide range of different research areas.



Download publication highlights here!

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