

# Accelerate your Research with NanoString Panels

NanoString provides scientists with innovative and customizable tools for basic and translational research to diagnostic development. Pre-made panels are available for Gene Expression, Gene Fusions, miRNA, CNV, SNV and Protein detection as well as custom project options for any species.

## About the nCounter® Analysis System

The nCounter Analysis System utilizes a novel digital color-coded barcode technology based on direct multiplexed measurement. The system offers high levels of precision and sensitivity with as little as 15 minutes hands-on time.

- Direct, digital quantification of DNA, RNA, and protein without amplification.
- Sample flexibility - works with low input, highly fragmented or contaminated sample types.
- Direct analysis of tissue, cell and blood lysates, single cells.
- Simple and fast workflow - No library prep.
- Highly multiplexed - analyze up to 800 targets simultaneously from a single sample.

## Customizable options

Customize your experiment using Panel-Plus to add up to 30 unique targets to any panel or have our bioinformatics group design a custom project for any species for any gene expression target, splice variation, lncRNA, Fusion Gene, or Copy Number Variant.

## nCounter Gene Expression Panels

PanCancer Pathways Panels	Human & Mouse	770 genes for essential cancer pathways including 40 internal reference controls for the human panel & 20 for the mouse panel.
PanCancer Immune Profiling Panels	Human & Mouse	770 immune profiling genes for the identification of different immune cell types, key checkpoint inhibitors, cancer antigens, genes for measuring the immune response & up to 40 internal reference controls.
PanCancer Progression Panel	Human	770 genes involved in cancer progression including angiogenesis, extracellular matrix remodeling (ECM), epithelial to mesenchymal transition (EMT), metastasis including 30 internal reference controls.
Immunology Panels	Human & Mouse	594 human genes or 561 mouse genes for broad-based screening of innate & adaptive immune response for allergy, auto-immune response diseases & infectious disease immune response. Includes up to 15 internal reference controls.
Inflammation Panels	Human & Mouse	255 human genes or 254 mouse genes for focused screening of the inflammation response in general immunology research including allergy, auto-immune diseases & infectious disease immune response. Includes 6 internal reference controls.
Myeloid Innate Immunity Panels	Human & Mouse	696 human genes or 675 mouse genes with emphasis on the myeloid component of innate immunity, which is relevant to cancer, autoimmune, & infectious disease. Includes up to 40 internal reference controls.
NHP Immunology Consortium Panel	Non-Human Primate	770 genes for vaccine testing, toxicity testing & organ transplant studies in non-human primates, including 16 internal reference controls.
Stem Cell Panel	Human	199 genes for the measurement of pluripotency & differentiation, including 6 internal reference controls.
Kinase Panel	Human	535 protein kinase genes known to be differentially expressed in the human kinome with 8 reference controls.
PanCancer IO 360 Panel	Human	750 cancer-related genes involved in the complex interplay between the tumor, microenvironment and immune response including 20 internal reference controls.
Neuropathology Panels	Human & Mouse	760 neuropathology-related genes included in six fundamental themes of neurodegeneration: neurotransmission, neuron-glia interaction, neuroplasticity, cell structure integrity, neuroinflammation and metabolism including 10 internal reference controls.

## miRNA Expression Panels - from miRBase v 21

nCounter Human v3 miRNA	Human	>800 human miRNAs with 20 internal reference controls & 5 mRNA probes.
nCounter Mouse v1.5 miRNA	Mouse	>600 mouse and mouse-associated viral miRNAs with 20 internal controls & 4 mRNA probes.
nCounter Rat v1.5 miRNA	Rat	>400 rat miRNAs derived from miRBase with 20 internal reference controls & 4 mRNA probes.

## CNV- Copy Number Variation

nCounter Human Cancer CN Panel	Human	87 most commonly amplified or deleted copy numbers in cancer.
nCounter Human Karyotyping Panel	Human	24 human chromosomes, 388 Individual loci for gross chromosomes abnormalities.

## nCounter® Vantage 3D™ Portfolio

Explore 3D Biology™ Technology, NanoString’s award winning technology for the simultaneous detection of DNA, RNA, and protein. Designed for flexibility, select the right Vantage 3D targeted panels for each analyte type then detect and analyze them all at once.

RNA Panels		
nCounter Vantage 3D Adaptive Immunity Panel	Human	180 genes to study T & B cell activation and signaling molecules, plus 12 internal reference controls.
nCounter Vantage 3D Innate Immunity Panel	Human	180 genes involved in host response, bacterial sensing, inflammation. Includes Toll-like receptor signaling, and related cytokines, plus 12 internal reference controls.
nCounter Vantage 3D Cancer Metabolism Panel	Human	180 unique genes related to cancer metabolism, plus 12 internal reference controls.
nCounter Vantage 3D Intracellular Signaling Panel	Human	180 unique genes related to signaling pathways in cancer immunology, plus 12 internal reference controls.
nCounter Vantage 3D Cellular Profiling Panel	Human	180 unique genes whose relative expression level is indicative of specific cell types, plus 12 internal reference controls.
nCounter Vantage 3D Wnt Pathways Panel	Human	180 unique genes related to the Wnt signaling pathways ( B-catenin, PCP and Calcium-Ion dependent pathways), plus 12 internal reference controls.
nCounter Vantage 3D DNA Damage and Repair Panel	Human	180 unique genes related to DNA damage & repair pathways, including base excision repair, nucleotide excision repair, mismatch repair, translesion synthesis, and other repair processes genes. In addition, 12 internal reference controls.
nCounter Vantage 3D MAPK-PI3K Pathways Panel	Human	192 genes that measure activation of the MAPK and/or PI3K pathways, plus 12 internal reference controls.
nCounter Vantage 3D RNA Heme Panel	Human	180 hematologic oncology related human genes, plus 12 internal reference controls.
Protein Panels		
nCounter Vantage 3D Immune Cell Profiling for cell suspensions	Human	30 immune cell surface proteins including CD4, CD8, PDL-1, plus 3 internal reference controls.
nCounter Vantage 3D Immune Cell Signaling for cell suspensions	Human	30 intracellular immune cell signaling proteins including IL-2, IL-6, FOXP3, plus 3 internal reference controls.
nCounter Vantage 3D Solid Tumor Signaling Pathways for cell lysates	Human	28 solid tumor signaling pathway total and phospho-protein targets including AKT, MAPK, PRAS40, plus 3 internal reference controls.
nCounter Vantage 3D Solid Tumor Signaling Pathways for FFPE	Human	26 key solid tumor signaling protein targets listed above, plus 3 internal reference controls.
DNA (Single Nucleotide Variants) Panels		
nCounter Vantage 3D SNV Solid Tumor	Human	104 actionable and high-frequency SNV and INDELS in 25 key solid tumor genes.
Lung and Leukemia Gene Fusion Panels		
nCounter Vantage 3D Lung Gene Fusion Panel	Human	63 probes: 35 for specific fusion detection, 24 for positional gene expression imbalance detection, and 4 internal reference controls.
nCounter Vantage 3D Leukemia Gene Fusion Panel	Human	42 probes: 27 for specific fusion detection, 12 leukemia biomarkers, and 3 internal reference controls.