

small sample.

RNA  
PROTEIN  
DNA  
RNA  
PROTEIN

# BIG INSIGHT.

nCounter  
**Vantage™** assays

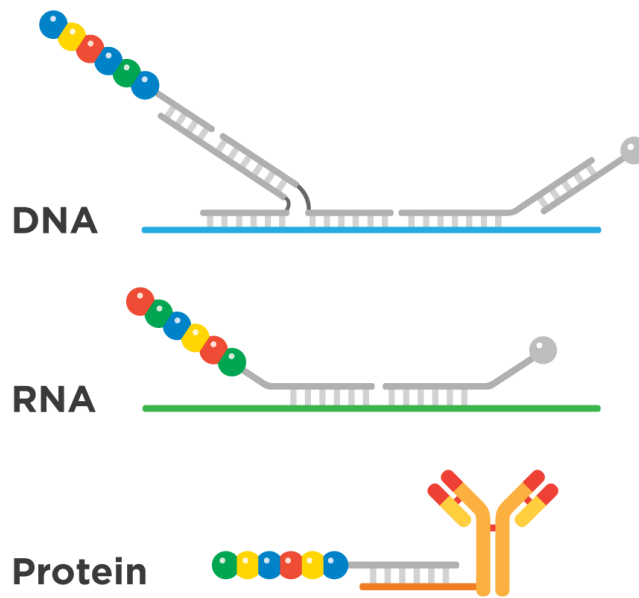
DISCOVER MORE WITH LESS SAMPLE.

[nanosttring.com/3D](http://nanosttring.com/3D)

nanoString  
TECHNOLOGIES®

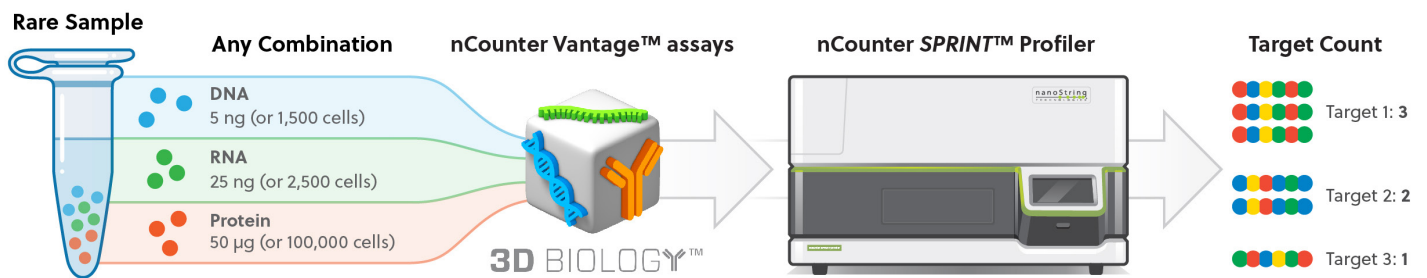
**WHY  
COMPROMISE?**

# nCounter Vantage ASSAYS POWERED BY 3D BIOLOGY TECHNOLOGY

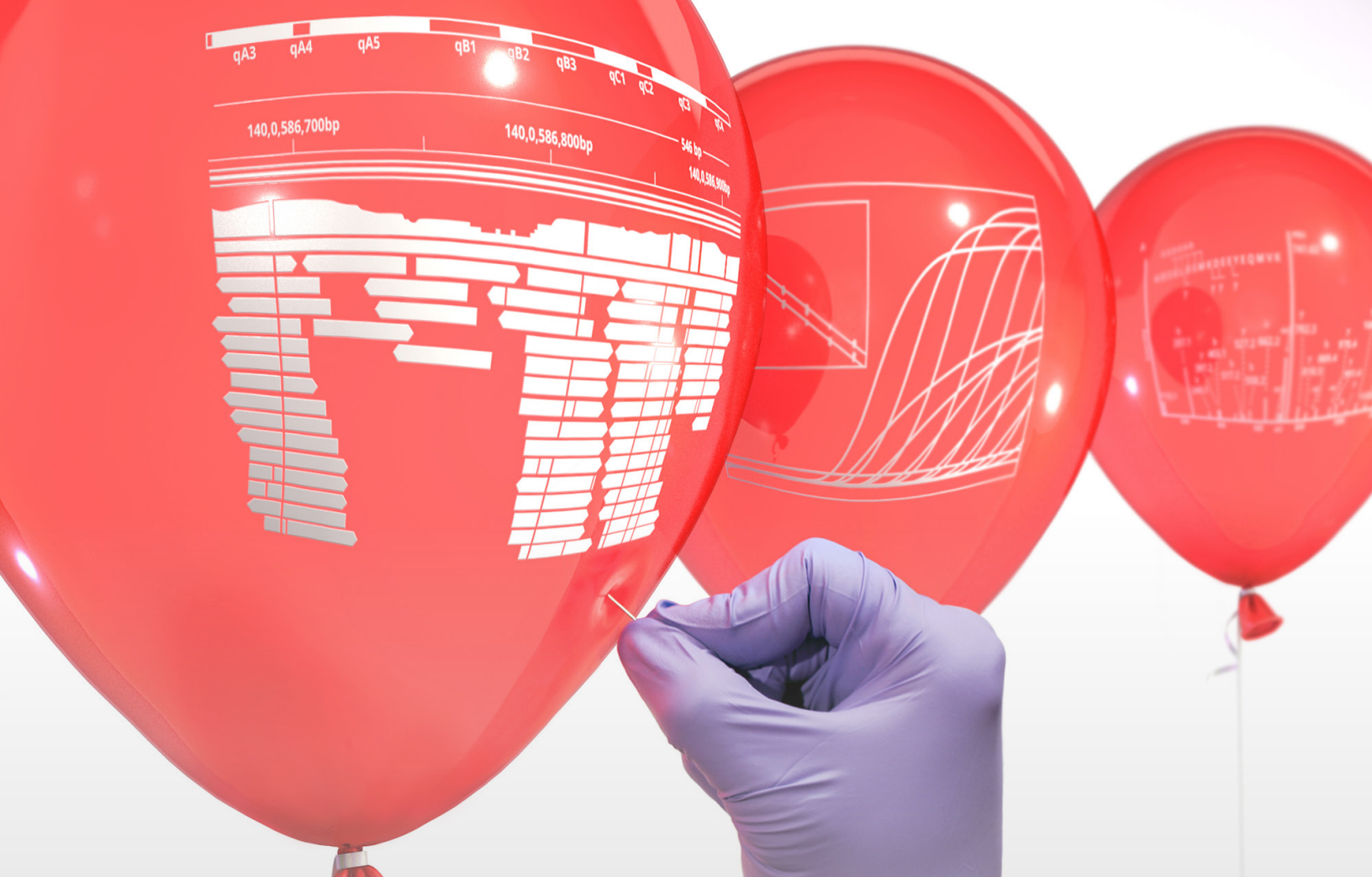


Don't let sample volume limit your analytical aspirations. Quantify DNA, RNA, and protein in a single assay to use less precious material and gather more informative data.

The nCounter Vantage portfolio is designed for flexibility. Pick and choose the right targeted panels for each analyte type, and detect and analyze them all at once with the nCounter system and nSolver™ software for the biggest output from the smallest inputs:



**STOP  
SEQUENTIAL  
TESTING**



nCounter Vantage ASSAYS CAPTURE THE FULL PICTURE—  
TARGETED DNA, RNA, AND PROTEIN ANALYSES IN ONE PROCESS  
AND ON ONE PLATFORM.

**1** experiment  
**+** **1** instrument  
**+** **1** readout

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**Unlimited discovery potential**

# FEATURED APPLICATION: IMMUNO-ONCOLOGY

## SIMULTANEOUS ANALYSIS OF GENE AND PROTEIN EXPRESSION

The nCounter Vantage RNA:Protein Immune Cell Profiling panel combines our PanCancer Immune Profiling panel for RNA expression analysis with 30 key immuno-oncology protein targets and allows for direct measurement of RNA and protein expression using the proven nCounter system. Enabling a new way of looking at your targets and systems of interest, you can get more data with less sample and gain deeper insight into your immuno-oncology research.

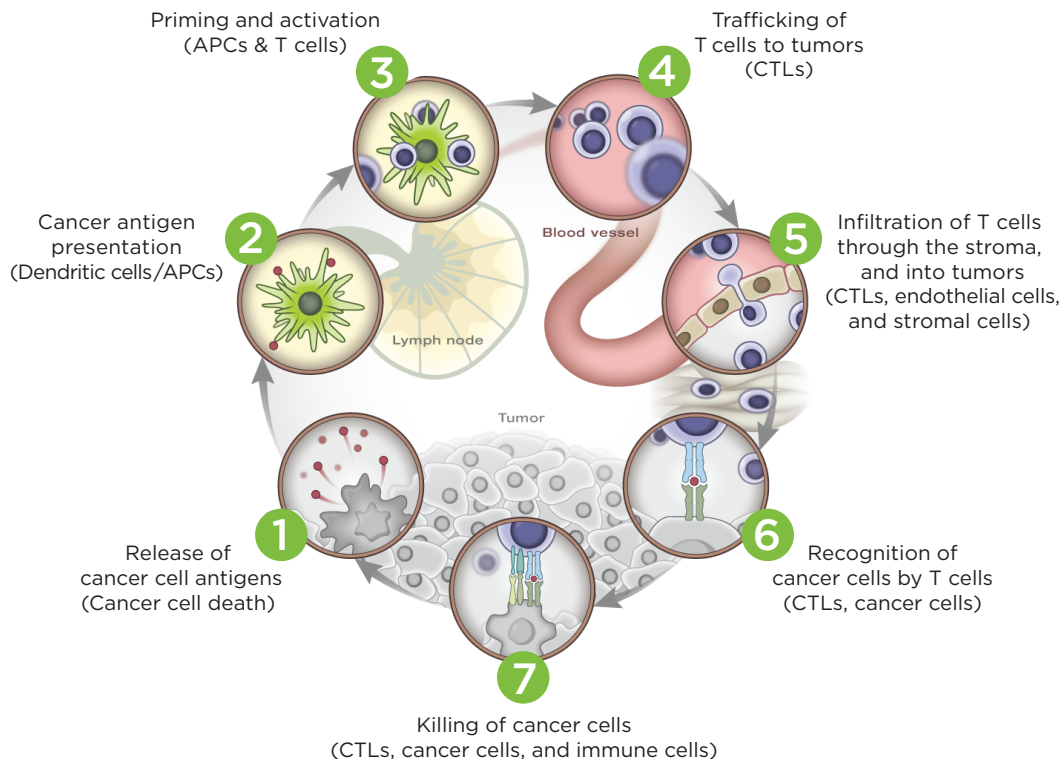
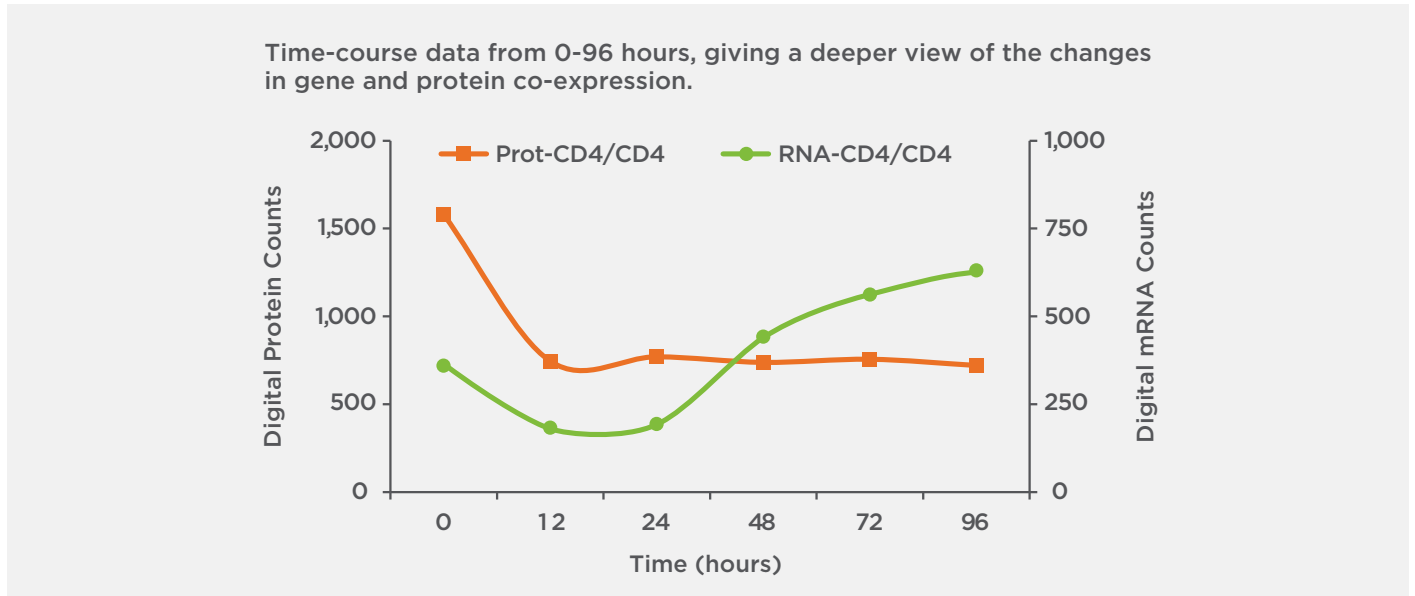


Illustration used with permission and originally published in: Chen, D.S., Mellman, I. (2013), author update (2015) *Oncology Meets Immunology: the Cancer-Immunity Cycle*. *Immunity* 39(1):1-10.

Stage of Cancer Immunity Cycle	Proteins in the nCounter RNA:Protein Immune Cell Profiling Panel
<b>2</b> Antigen Presentation	CD4, CD40, CD154 (CD40L)
<b>3</b> Priming and Activation	CD279 (PD-1), CD274 (PD-L1), CD273 (PD-L2), CD25 (IL2R), CD56 (NCAM), CD357 (GITR), CD137 (OX40), CD27, CD28, CD127, CD137 (4-1BB)
<b>4-5</b> Trafficking and Infiltration	CD9
<b>6-7</b> Recognition and Killing of Cancer Cells	CD279 (PD-1), CD274 (PD-L1), CD273 (PD-L2), CD272 (BTLA), HLA-DRA
Immune Modulation	CD279 (PD-1), CD278 (ICOS), CD158e1 (KIR3DL1), CD335 (NKp46), CD152 (CTLA-4), CD3 (CD3E), CD8 (CD8A), CD14, CD19, CD33, CD68, CD163

## CHARACTERIZING MACROPHAGE DIFFERENTIATION AND POLARIZATION

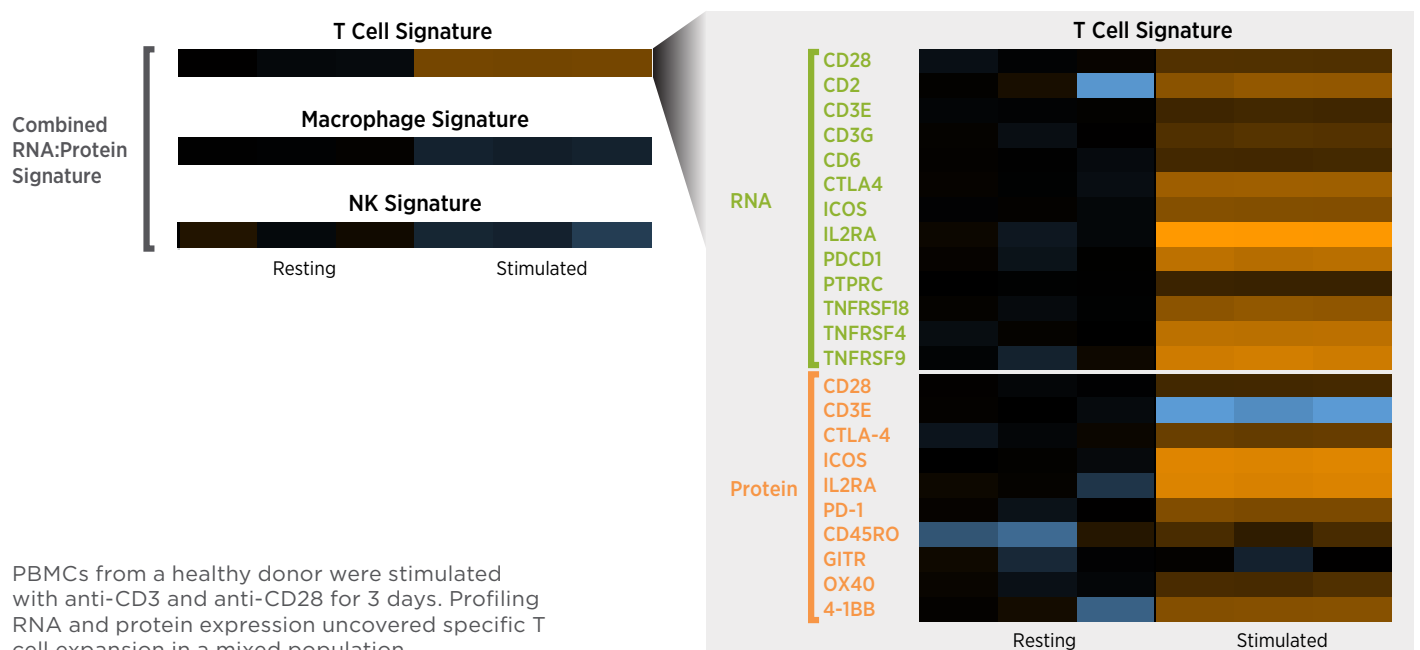
Integrated analysis enables simultaneous quantitation of RNA and protein expression from a single sample and eliminates the need to compare data from different technologies with different outputs.



A THP-1 monocytic cell line was induced to differentiate into a macrophage phenotype with PMA. Cells were then polarized to an M1 or M2 phenotype by 24h culture with IFN $\gamma$  + LPS, or IL4, respectively. Gene and protein expression was characterized at each stage of differentiation using the nCounter Vantage RNA:Protein Immune Cell Profiling Panel.

## PRECISE CELL PROFILING

RNA:Protein signatures can accurately identify specific immune cell types, allowing you to uncover changes in a heterogeneous cell population in response to external stimuli, such as immunotherapeutic agents, for example.



PBMCs from a healthy donor were stimulated with anti-CD3 and anti-CD28 for 3 days. Profiling RNA and protein expression uncovered specific T cell expansion in a mixed population.

## nCounter Vantage PORTFOLIO

Mix and match any combination of pre-validated DNA, RNA, and Protein panels from below:

nCounter Vantage DNA panels	nCounter Vantage RNA panels	nCounter Vantage Protein panels
Solid Tumor	Adaptive Immunity Innate Immunity Cellular Profiling Cancer Metabolism DNA Damage and Repair Wnt Pathways Cellular Signaling Lung Gene Fusion Leukemia Gene Fusion	Immune Cell Profiling for cell suspensions*  Immune Cell Signaling for cell suspensions*  Solid Tumor Signaling Pathways for cell lysates*

### Pre-matched multi-analyte panel:

nCounter Vantage RNA:Protein panels	Description
Immune Cell <b>Profiling</b> for cell suspensions	Combination of 30 key <b>extracellular</b> immuno-oncology protein targets and the 770 RNA PanCancer Immune Profiling panel.
Immune Cell <b>Signaling</b> for cell suspensions	Combination of 30 key <b>intracellular</b> immuno-oncology protein targets and the 770 RNA PanCancer Immune Profiling panel.

■ Coming Soon. Currently recruiting for Product Evaluation Programs. Contact [productevaluation@nanosttring.com](mailto:productevaluation@nanosttring.com)

\* nCounter Vantage Protein panels can also be matched with existing nCounter PanCancer panels.

Learn how nCounter Vantage assays can immediately impact your research at [nanosttring.com/3D](http://nanosttring.com/3D)

# DNA + RNA + PROTEIN



### THE END OF PROFILING AS YOU KNOW IT.

Stop asking, "What can I measure?" Start asking, "What should I measure?" Thanks to nCounter Vantage assays, you get the full picture—targeted DNA, RNA, and protein analysis in one process. Stop compromising. Stop performing sequential testing. Learn more at [nanosttring.com/3D](http://nanosttring.com/3D)

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