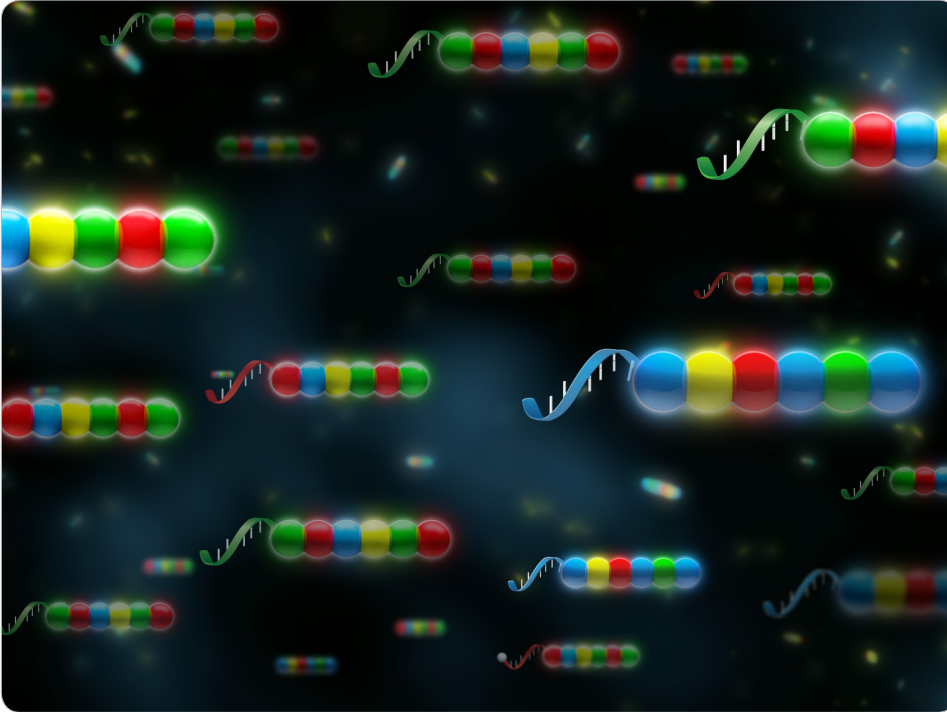




nCounter® Panel-Plus and CodeSet-Plus



Product Highlights

- **30 unique Reporter Probes are universally compatible** with all custom CodeSets and Panels
- **Compatible** with all Gene Expression and CNV products, including Single Cell applications

Applications

- **Customize a Panel**
Add up to 30 of your favorite genes or a collection of specific controls
- **Update a large CodeSet**
Add new genes as you go to keep your CodeSet updated
- **Create specific control sets**
Create multiple Plus control sets for use with different sample or cell types
- **Finalize your gene list more quickly**
Add more genes later

nCounter® Panel-Plus and CodeSet-Plus Product Overview

The nCounter® Panel-Plus and CodeSet-Plus products from NanoString Technologies add a new level of flexibility to nCounter Gene Expression and CNV experiments. Researchers can now customize any NanoString off-the-shelf panel kit or add genes to any custom CodeSet by utilizing up to 30 unique Reporter Probes exclusively formulated for use in Panel-Plus and CodeSet-Plus products.

Panel-Plus enables any off-the-shelf panel kit to be customized with up to 30 additional genes of interest. Customizing a panel kit with a Panel-Plus product allows researchers to leverage the bioinformatics knowledge incorporated into every nCounter panel kit and provides unprecedented flexibility to tailor a comprehensive list of genes to your exact needs. In addition, combining a panel kit combined with Panel-Plus will allow you to survey a comprehensive collection of genes for a lower cost per sample when compared to the same gene set being ordered as a custom CodeSet.

CodeSet-Plus provides researchers the ability to update custom CodeSets that may be used to analyze large sample sets over many months. Genes of interest that become known during ongoing research or from a new publication can now easily be added to a custom CodeSet. This flexibility means that a custom CodeSet sufficient to analyze all the samples in a large study can be purchased with confidence. Purchasing a larger custom CodeSet provides a more cost effective solution versus purchasing multiple smaller custom CodeSets.

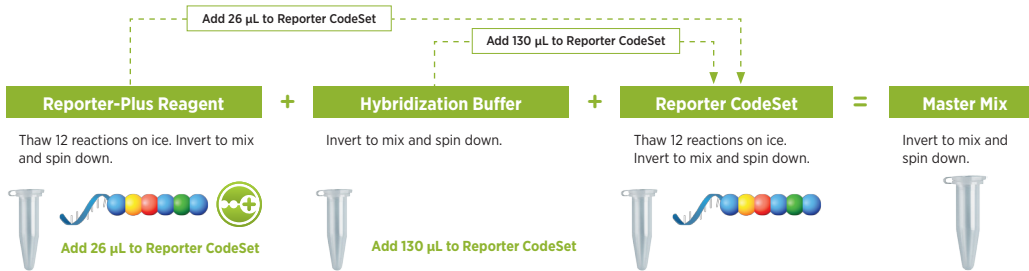
Molecules That Count®

nCounter® Panel-Plus and CodeSet-Plus Product Overview

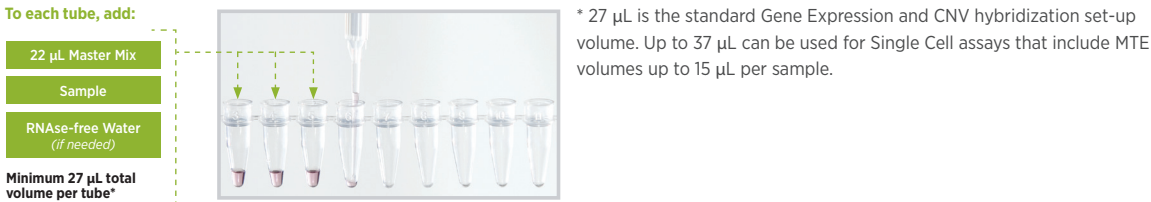
Plus CodeSets contain Reporter (Reporter-Plus) and Capture (Capture-Plus) Probes for up to 30 targets and can be combined with any custom CodeSet or pre-designed Panel prior to overnight hybridization. Using a Plus product with either a CodeSet or Panel is simple and requires few additional steps as outlined in the diagram below.

NOTE: After hybridization, all subsequent steps are performed as described in the nCounter Prep Station and Digital Analyzer Manuals. For specific recommendations on sample input see the nCounter RNA or DNA User Manual. For a detailed protocol see the nCounter Panel-Plus and CodeSet-Plus Protocol.

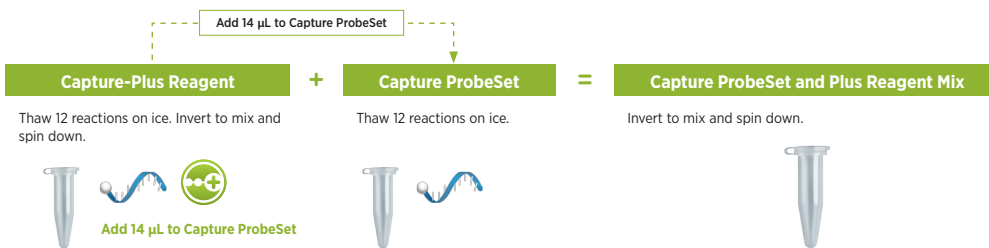
1 Create Reporter and Plus Reagent Master Mix



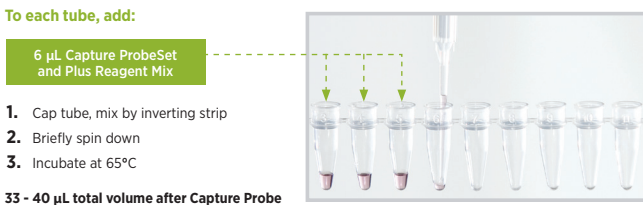
2 Set Up Hybridization Reaction



3 Create Capture ProbeSet and Plus Reagent Mix



4 Complete Hybridization Reactions

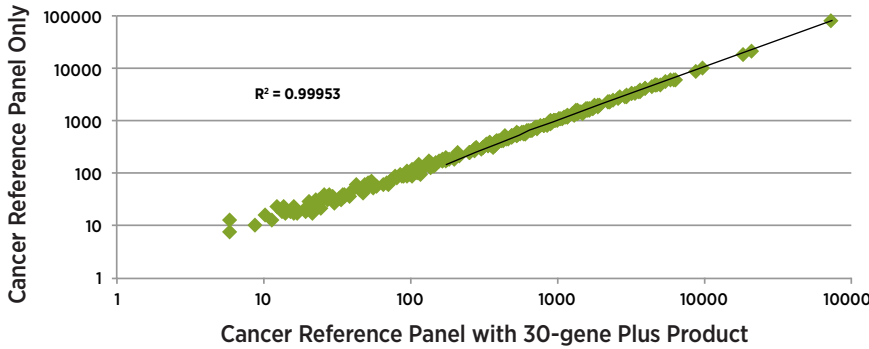


Performance of Panel-Plus Gene Sets with Pre-designed Panels

Standard Gene Expression and Single Cell Analysis

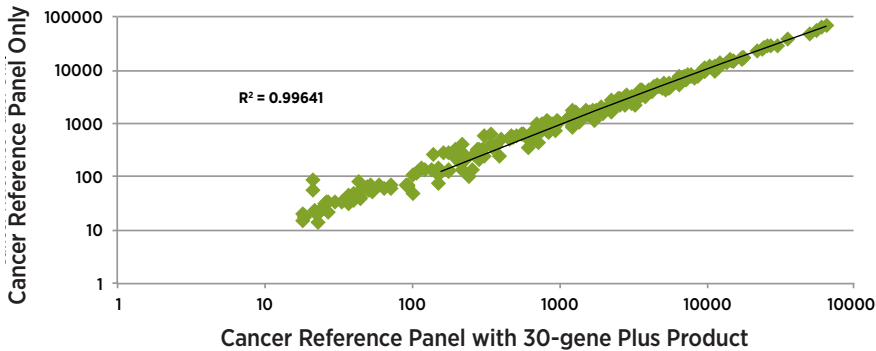
Two experiments were performed by adding Panel-Plus genes to the Human Cancer Reference Kit. Data in each figure below demonstrate that addition of CodeSet-Plus probes does not impact performance of original nCounter panel probes or single cell panel probes.

Gene Expression



Human reference total RNA (100 ng) was hybridized with either the nCounter Cancer Reference Kit alone (Original CodeSet) or with the nCounter Cancer Reference Kit and a 30-gene Panel-Plus (Original CodeSet with Plus). Assays were performed in triplicate for each condition tested and normalized to internal positive controls. Average count values for each triplicate measurement were determined and plotted for all nCounter Cancer Reference Kit probes in the Original CodeSet alone (y-axis) and Original CodeSet with Plus (x-axis).

Single Cell Gene Expression



Human reference total RNA (100 pg) was converted to cDNA and enriched via a Multiplexed Target Enrichment (MTE) with primers appropriate for downstream hybridization according to the nCounter Single Cell Expression Assay Protocol for Total RNA. The enriched cDNA was hybridized with either the nCounter Cancer Reference Kit alone (Original CodeSet) or with the nCounter Cancer Reference Kit and a 30-gene Panel-Plus (Original CodeSet with Plus). Assays were performed in triplicate for each condition tested and normalized to internal positive controls. Average count values for each triplicate measurement were determined and plotted for all nCounter Cancer Reference Kit probes in the original CodeSet alone (y-axis) and Original CodeSet with Plus (x-axis).

Design and Ordering Information

When a custom nCounter Panel-Plus or CodeSet-Plus is ordered, probes are designed for every gene sequence in the request. Two separate vials for custom Plus genes are shipped along with a unique Add-in Library File (ALF) file that includes the additional genes. The Plus products will not include controls but are tested prior to shipment with the nCounter standard CodeSet controls included in all custom CodeSets and panels. Plus products are always used with either a panel or a custom CodeSet and do not require the purchase of additional Master Kit reagents.

Plus products can be ordered from three separate gene categories and are offered with purchases of Panels or Custom CodeSets for 48 reactions or more.

Description	Number of Genes	Number of Reactions
Panel-Plus	6 - 11 genes	48 minimum
	11 - 20 genes	
	21 - 30 genes	
CodeSet-Plus	6 - 10 genes	48 minimum
	11 - 20 genes	
	21 - 30 genes	

Frequently Asked Questions

1. Can I use multiple Plus products with a Panel or Custom CodeSet?

No. Multiple Plus products cannot be mixed or combined in a reaction. Only one Plus product may be used in conjunction with a set of specific reactions. It is possible to use different Plus products on separate occasions with different Panels or CodeSets.

2. Can I use the Plus product as I would a custom CodeSet?

No. Plus products are not the same as custom CodeSets. Plus products have been formulated to be mixed with Panel or Custom CodeSet Reporter and Capture Probe Mixes. Plus products also do not include the necessary controls for proper normalization.

3. How do I include the new genes in my data analysis?

To include the new genes, please contact NanoString Bioinformatics at bioinformatics@nanosttring.com. Include in your message the name of the Plus product and original CodeSet that will be combined. A new Reporter Library File (RLF) containing both will be sent within 24 hours.

4. How do I analyze the combined data?

After scanning on the Digital Analyzer, data may be imported into nSolver™ Analysis Software for downstream analysis. Please see the *nSolver Analysis Software Manual* for additional information on the nSolver application.

5. Can I purchase a Panel-Plus for my miRNA, miRGE™, or Plex™ experiment?

Not at this time. Plus products are specially formulated to be universally compatible with all CNV and Gene Expression CodeSets.

NanoString Technologies, Inc.

530 Fairview Ave N
Suite 2000
Seattle, WA 98109 USA

Toll-free: 1 888 358 6266 | Fax: 206 378 6288
www.nanosttring.com | info@nanosttring.com

LEARN MORE

To learn more about Panel-Plus and CodeSet-Plus products, visit http://www.nanosttring.com/products/panel_plus or contact your local NanoString Technologies representative.

SALES CONTACT

United States: us.sales@nanosttring.com
Europe: europe.sales@nanosttring.com
Other Regions: info@nanosttring.com

© 2014 NanoString Technologies, Inc. All rights reserved. NanoString®, NanoString Technologies®, nCounter®, Molecules That Count®, and nSolver™ are registered trademarks or trademarks of NanoString Technologies, Inc., ("NanoString") in the United States and/or other countries. All other trademarks and or service marks not owned by NanoString that appear in this document are the property of their respective owners. The manufacture, use and or sale of NanoString product(s) may be subject to one or more patents or pending patent applications owned by NanoString or licensed to NanoString from Life Technologies Corporation and other third parties.