

nCounter[®] XT Plex^{2™} Expression Assay

Product Description

The **nCounter XT Plex² Expression Assay** is designed to provide a sensitive, reproducible, highly multiplexed, and high-throughput method for nucleic acid profiling. The nCounter XT Plex² Expression Assay components consist of custom designed probes or CodeSet and all the material and reagents required to run the assay. Each of the sequences assayed by the CodeSet is targeted by two different probes, the Reporter and Capture probes. The number of probes, consumables and reagents is customized to your specific order.

Reference Documents

- *nCounter XT Assay User Manual*
- *nCounter CodeSet Design Manual*
- *nCounter Analysis System User Manual*
- *nCounter Data Analysis Guidelines*

nCounter XT Plex² Expression Assay Kit

Component	Volume per Tube (µL)	Assay per Tube	Storage Conditions
nCounter XT Plex ² Reporter CodeSet (# of targets customer specified)	42	12	-80°C
nCounter XT Plex ² Capture ProbeSet	32	12	-80°C

Storage Conditions: Store for up to 2 years at listed conditions

The nCounter XT CodeSet kit also includes a USB drive that contains:

- *Three read-only folders for Cartridge Definition files (CDFData), Reporter Library files (RLFData), and Reporter Code Count files (RCCData)*
- *A RLF and CDF template*
- *PDF copies of the reference documents listed above*
- *nSolver™ Analysis Software*
- *This product specifications sheet*
- *Material Safety Data Sheet(s)*

Testing and Quality Control

All nCounter CodeSets are functionally tested.

Specifications

Description	Volume
Level of target multiplexing	Up to 200 targets per assay for 4 samples per lane Up to 400 targets per assay for 2 samples per lane
Recommended amount of starting material	150 ng purified total RNA for 4 samples per lane 100 ng purified total RNA for 2 samples per lane
Sample types supported	Total RNA, cell lysates, FFPE-derived total RNA, and lysed whole blood
Hybridization reaction volume	15 µL per sample
Limit of detection 2X	≤ 15 zeptomoles (~1 copy per cell)
Limit of detection 4X	≤ 22.5 zeptomoles (~1 copy per cell)
Fold change sensitivity	≥ 2-fold change (~1 copy per cell) 1.5-fold change (~5 copies per cell)
Spike titration linearity	R ² ≥ 0.95
Linear dynamic range	7 x 10 ⁵ total counts
nCounter Prep Station throughput	12 samples / 2.5 hours
nCounter Digital Analyzer throughput	48 samples / 2.7 hours (up to 384 samples per day unattended running in continuous mode)
Controls	<ul style="list-style-type: none"> • 6 positive assay controls • 8 negative assay controls

nCounter XT Plex² Master Kit Components 2X

All reagents and consumables required for post-hybridization processing of nCounter XT Plex² assays are supplied with the nCounter Master Kit components. These include:

- nCounter Cartridges
- nCounter Prep Plates
- nCounter Prep Packs

The Master Kit components are shipped in separate boxes under different shipping conditions.

nCounter Cartridge

Up to twenty-four samples can be processed in a single nCounter Cartridge.

Component	Assay Pack	Cartridge per Pack
nCounter Cartridge	768	32

Storage Conditions: Store for up to 1 year at -20°C.

nCounter Prep Plates

The Prep Plates are foil sealed 96-well plates that are used by the Prep Station. Do not remove the foil seals.

Component	Assay Pack	Plates per Pack
Contains wash buffers, magnetic beads, immobilization, and imaging reagents	768	64

Storage Conditions: Store for up to 1 year at 4°C.

nCounter Prep Pack

Component	Assay Pack	Units per Pack
Racked tips and foil piercers	768	32 racks
12-strip tubes	768	136 strips
Tip sheaths	768	64 sheaths
12-strip tube caps	768	136 strips
Cartridge well seals	768	48 seals
Hybridization buffer	768	32 tubes

**If hybridization buffer has been stored in cold conditions and precipitate is observed, warm tubes at 37°C until salts have dissolved.*

Hybridization Buffer Storage: Store for up to 2 years at room temperature. All remaining Prep Pack materials, store at room temperature. No expiration date.

nCounter XT Plex² Master Kit Components 4X

All reagents and consumables required for post-hybridization processing of nCounter XT Plex² assays are supplied with the nCounter Master Kit components. These include:

- nCounter Cartridges
- nCounter Prep Plates
- nCounter Prep Packs

The Master Kit components are shipped in separate boxes under different shipping conditions.

nCounter Cartridge

Up to forty-eight samples can be processed in a single nCounter Cartridge.

Component	Assay Pack	Cartridge per Pack
nCounter Cartridge	768	16

Storage Conditions: Store for up to 1 year at -20°C.

nCounter Prep Plates

The Prep Plates are foil sealed 96-well plates that are used by the Prep Station. Do not remove the foil seals.

Component	Assay Pack	Plates per Pack
Contains wash buffers, magnetic beads, immobilization, and imaging reagents	768	32

Storage Conditions: Store for up to 1 year at 4°C.

nCounter Prep Pack

Component	Assay Pack	Units per Pack
Racked tips and foil piercers	768	16 racks
12-strip tubes	768	104 strips
Tip sheaths	768	32 sheaths
12-strip tube caps	768	104 strips
Cartridge well seals	768	24 seals
Hybridization buffer	768	32 tubes

**If hybridization buffer has been stored in cold conditions and precipitate is observed, warm tubes at 37°C until salts have dissolved.*

Hybridization Buffer Storage: Store for up to 2 years at room temperature. All remaining Prep Pack materials, store at room temperature. No expiration date.

Safety Information

Material Safety Data Sheets are included on the USB drive packaged with the nCounter XT CodeSets. Safety information for operation of the nCounter System is included in the *nCounter Analysis System User Manual*.

Precautions

1. The NanoString nCounter Analysis System and consumables are for **RESEARCH USE ONLY**. Not for use in diagnostic procedures.
2. Avoid microbial contamination, which may negatively affect the quality of the results.
3. All biological specimens and materials should be handled as if the potential exists for transmitting infectious agents and disposed of with proper precautions in accordance with federal, state and local regulations. This includes adherence to the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) for samples derived from blood and other sources governed by this act.
4. Never pipet by mouth.
5. Avoid specimen contact with skin and mucous membrane and always wear gloves.
6. Exercise caution when handling and disposing of carcinogenic reagents.
7. Avoid cross-contamination of samples which may negatively affect results quality.

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