

nCounter® miRGE Assay

Product Description

The nCounter miRGE Assay allows researchers to detect the expression of subsets of both mRNAs and miRNAs using the fully-automated nCounter Analysis System workflow. The nCounter miRGE Assay comes with the Nanostring miRNA Sample Preparation kit which provides all the reagents required for using the nCounter miRGE CodeSet for the detection miRNAs and mRNAs in total RNA with great specificity and sensitivity via the nCounter Analysis System.

Reference Documents

- *nCounter Expression CodeSet Design Manual*
- *nCounter Analysis System Brochure*
- *nCounter Prep Station User Manual*
- *nCounter Digital Analyzer User Manual*
- *nCounter Expression Data Analysis Guide*

nCounter miRGE Assay Kit

| Component | Volume per Tube (µL) | Assay per Tube | Storage Conditions |
|-------------------------------------|----------------------|----------------|--------------------|
| nCounter miRGE CodeSet and Controls | 130 | 12 | -80°C |
| nCounter miRGE Capture ProbeSet | 70 | 12 | -80°C |
| miRNA annealing buffer | 18 | 12 | -20°C |
| nCounter miRNA Tag Reagent | 30 | 12 | -20°C |
| miRNA assay controls | 15 | 12 | -80°C |
| PEG | 30 | >12 | room temp |
| Ligation buffer | 20 | >12 | -20°C |
| Ligase | 15 | 12 | -20°C |
| Ligation clean-up enzyme | 18 | 12 | -20°C |
| 12-strip tube with caps | 1 per 12 assays | | room temp |

Storage Conditions: Store for up to 1 year at listed conditions

The miRGE Assay 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*
- *RCC collector tool*
- *This product specifications sheet*
- *Material Safety Data Sheet(s)*

Testing and Quality Control

All nCounter CodeSets are functionally tested.

Specifications

| Description | Volume |
|--|--|
| Level of multiplexing | 5 – 30 miRNAs 100 – 200 mRNAs |
| Recommended amount of starting material | 100 ng purified total RNA |
| Sample types supported | Purified total RNA |
| miRNA sample prep reaction volume | 10 µL |
| Hybridization reaction volume | 35 µL |
| Limit of detection | |
| • miRNA | > 2.5 copies per cell |
| • mRNA | 1 copy per cell |
| Fold change sensitivity | ≥ 2-fold change |
| Hybridization spike correlation | R ² ≥ 0.95 |
| Linear dynamic range | 2 x 10 ⁶ total counts |
| nCounter Prep Station throughput | 12 samples < 2.5 hours |
| nCounter Digital Analyzer throughput | 12 samples / 4 hours (<i>up to 72 samples per day unattended running in continuous mode</i>) |
| Controls | <ul style="list-style-type: none"> • 6 positive hybridization controls • 8 negative hybridization controls • 2 positive ligation controls |

nCounter Master Kit Components

All reagents and consumables required for post-hybridization processing of nCounter miRGE assays are supplied in the nCounter Master Kit. Kits for 48 and 192 assays are available. Master Kit components include:

- *nCounter Cartridges*
- *nCounter Prep Plates*
- *nCounter Prep Packs*

The nCounter Master Kit components are shipped in separate boxes under different shipping conditions. Individual components may be purchased separately if required.

nCounter Cartridge

Twelve samples can be processed in a single nCounter Cartridge.

| Component | Assay Pack | Cartridge per Pack |
|--------------------|------------|--------------------|
| nCounter Cartridge | 48 | 4 |
| | 192 | 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 | 48 | 8 |
| | 192 | 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 | 48 | 16 racks |
| | 192 | 16 racks |
| 12-tube strips | 48 | 14 strips |
| | 192 | 56 strips |
| Tip sheaths | 48 | 8 sheaths |
| | 192 | 32 sheaths |
| 12-strip tube caps | 48 | 14 strips |
| | 192 | 56 strips |
| Cartridge well seals | 48 | 6 seals |
| | 192 | 24 seals |
| Hybridization buffer | 48 | 2 tubes |
| | 192 | 8 tubes |

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

Storage Conditions: Store at room temperature. No expiration date.

Safety Information

Material Safety Data Sheets are included on the USB drive packaged with the nCounter CodeSets. Safety information for operation of the nCounter System is included in the *nCounter Prep Station User Manual* and the *nCounter Digital Analyzer 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.

Limited License

Subject to the terms and conditions of the nCounter Analysis System contained in the product quotation, NanoString grants you a limited, non-exclusive, non-transferable, non-sublicensable, research use only license to use the proprietary nCounter Analysis System only in accordance with the manual and other written instructions provided by NanoString. Except as expressly set forth in the terms and conditions, no right or license, whether express, implied or statutory, is granted by NanoString under any intellectual property right owned by, or licensed to, NanoString by virtue of the supply of the proprietary nCounter Analysis System. Without limiting the foregoing, no right or license, whether express, implied or statutory, is granted by NanoString, to use the nCounter Analysis System with any third party product not supplied or licensed to you by NanoString, or recommended for use by NanoString in a manual or other written instruction provided by NanoString.

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