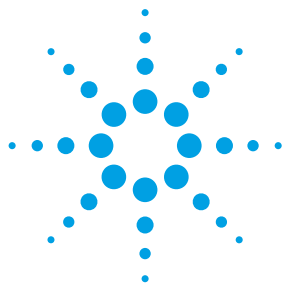


WE MAKE IT. *You make it happen.*



Next Generation Sequencing and Gene Expression research are enhanced with the use of BioAnalyzer and Mx instruments.

#### 2100 Bioanalyzer

- Ready-to-use assays and pre-packaged reagent kits
- Minimal sample consumption (1-4 uL) and lowest exposure to hazardous substances
- Digital data for convenient analysis, archiving and storage
- Contamination-free switch of methods
- Quick and easy verification of the quality of your DNA or RNA to ensure yield, fragment size and homogeneity

#### Mx3005P QPCR

- Advanced scanning optical design for large dynamic range of detection and consistently reproducible results
- Extensive publications available for both SYBR® Green and Taqman® methods of NGS library quantification
- Pause feature and real-time amplification monitoring allow removal of reactions mid-run based on defined cycle threshold
- MxPro software is easy to use for beginners learning qPCR and contains many advanced features for experienced users

## A Powerful Combination

**Agilent's Mx3005P and 2100 Bioanalyzer:**  
Providing consistency and confidence to your workflow.

Whether you are conducting Next Generation Sequencing, Gene Expression or other genetic research, the combination of Agilent Technologies' 2100 Bioanalyzer and Mx3005P QPCR System can enhance the quality of your research.

Both instruments are backed by the peer-reviewed, published research of thousands of scientists, proving to be an integral part of reproducible and reliable genetic research. Dual instrument monitoring of your libraries and samples allows for the highest confidence in the quality of your data - including ensuring the highest sample quality and MIQE compliance.

Agilent is currently offering exciting discounts when purchasing this powerful combination.

To request a quote or more information about purchasing a **2100 Bioanalyzer** and an **Mx3005P** please visit

[www.agilent.com/genomics/MxBioA](http://www.agilent.com/genomics/MxBioA).

To find an Agilent customer center in your country please visit [www.agilent.com/genomics/contact](http://www.agilent.com/genomics/contact).



## Conduct Reliable Gene Expression (qRT-PCR) Experiments With MIQE Compliance

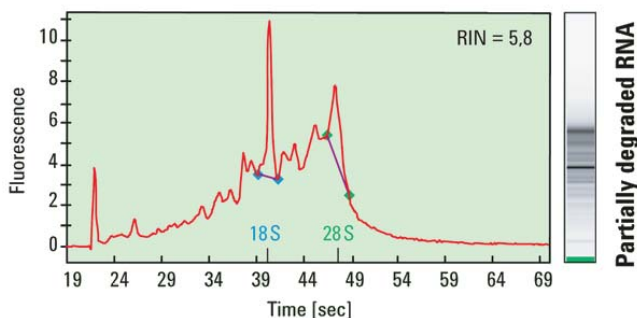
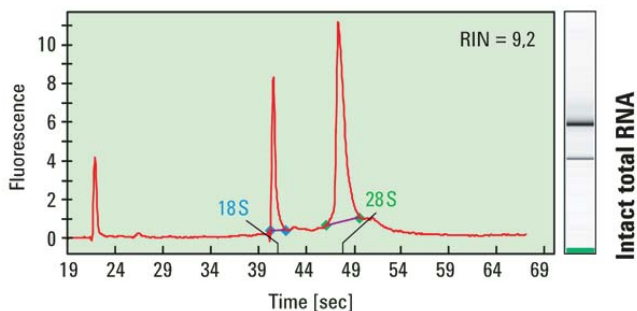
[www.agilent.com/genomics/geneexpression](http://www.agilent.com/genomics/geneexpression)

The **Agilent 2100 Bioanalyzer RNA Kit** portfolio has become the industry standard RNA quality control tool ensuring RNA sample integrity.

- Referenced by more than 10000 peer-reviewed publications
- Save RNA by using only 1  $\mu\text{L}$  of sample down to 50  $\text{pg}/\mu\text{L}$
- Specific assays for small RNA and plant RNA samples
- RIN algorithm for automated, user-independent RNA integrity assessment, an essential part of MIQE compliance

**Mx3005P QPCR Instrumentation** is a powerful tool for qPCR gene expression – and it complies with MIQE guidelines.

- Cited in more than 3000 publications, the Mx3005P is the most flexible and reproducible QPCR instrument available
- MxPro QPCR Software allows the user to produce all the required MIQE data, including:
  - Full export of raw data to allow submission of Cq values using Real Time Data Markup Language (RDML) data standard
  - Standard curves with slope, efficiency,  $\gamma$ -intercept and  $R^2$
  - Open and clear results, no unseen calculations affecting the data and access to raw data



### Intact and Degraded RNA with Corresponding RNA Integrity Number

The upper electropherogram and gel-like image show the analysis of high quality total RNA resulting in a RIN of 9.2. The lower electropherogram shows the analysis of a partially degraded total RNA sample. Many degradation products appear between the two ribosomal bands and below the 18S band resulting in a RIN of 5.8.

## Agilent Has Solutions To Cover Your Entire NGS Workflow

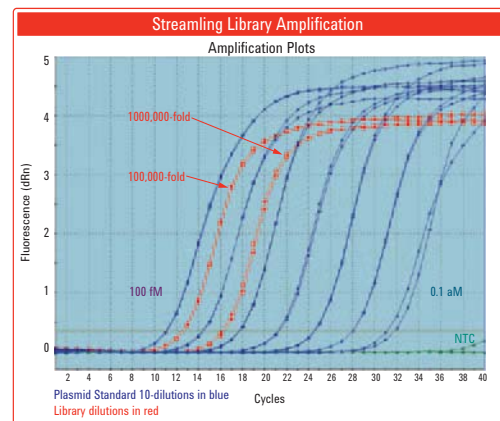
[www.agilent.com/genomics/nextgen](http://www.agilent.com/genomics/nextgen)

The **Agilent 2100 Bioanalyzer** is the proven platform for measuring sample and library quality, ensuring that every sample sequenced yields high quality data.

- Sizing, quantification and QC of DNA sequencing libraries or fragmented DNA – down to 100  $\text{pg}/\mu\text{L}$
- Broad linear dynamic range – enables detection less abundant products such as PCR artifacts and impurities
- Minimal sample consumption—only 1  $\mu\text{L}$  of material required per analysis
- Fast sample analysis—run 11-12 samples in 30 minutes

**Agilent's Mx3005P QPCR System** provides qPCR for all library quantification in NGS.

- Library Quant Kit - accurate, sensitive, scalable for high throughput qPCR assay for quantification of Illumina GA sequencing libraries
- Accurate library quantification below 5  $\text{pg}/\mu\text{L}$  input amount
- Detect and quantify ssDNA
- Recommended for use with PrimeTime® Assays from Integrated DNA Technologies (IDT) for validating all NGS discoveries



**Linearity and Sensitivity of qPCR Using a Plasmid DNA Standard**  
Linearized plasmid standard with a 170 bp fragment between the Illumina paired-end adapters was diluted into 20  $\mu\text{L}$  of PCR mix to a final dilution between 100 femtomolar and 0.1 attomolar final concentration.

### U.S. and Canada

1-800-227-9770  
[agilent\\_inquiries@agilent.com](mailto:agilent_inquiries@agilent.com)

### Europe

[info\\_agilent@agilent.com](mailto:info_agilent@agilent.com)

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