

## Agilent 2100 Bioanalyzer

The ‘Agilent 2100 electrophoresis bioanalyzer’ is the most successful microfluidics-based platform available commercially, offering solutions for the analysis of DNA, RNA and proteins. The Agilent 2100 bioanalyzer utilises micro-fabricated chips with up to 12-wells. It is faster than gels, more reproducible, generating complete digital data in 30 minutes for quality and quantity of up to 12 samples. It requires minimum sample consumption, in the low  $\mu\text{L}$ -range. Pre-packaged reagents included with the chip kits help to speed up the entire process. It is easy to use and share.

The assessment of RNA integrity is a critical first step in obtaining meaningful gene expression data. Using intact RNA is a key element for successful microarray or RT-PCR analyses. The **RNA 6000 Nano kit** is the current standard for sample QC in the context of microarray analysis. Profiles generated on the Agilent 2100 bioanalyzer yield information on concentration, allow a visual inspection of RNA integrity, and generate ribosomal ratios. In addition, each RNA electropherogram receives a RIN (RNA Integrity Number) assigned by the software. The RIN unambiguously assesses RNA quality in terms of degradation. With the **RNA 6000 Pico kit** it is possible to catch RNA degradation with sample amounts as low as 200 pg of total RNA and to automatically detect ribosomal RNA contamination in mRNA.

The Agilent 2100 bioanalyzer helps to optimize PCR reactions for gene expression, sequencing, cloning and typing. When used in conjunction with the **DNA kits**, it provides higher sensitivity, improved sizing accuracy and automated, reproducible quantitation, compared with regular slab gel electrophoresis, which is crucial for RT-PCR and any type of multiplex PCR.

The **Protein 200 Plus LabChip kit** is a fast and reliable assay capable of quantifying and sizing a multitude of different protein samples. Used with the Agilent 2100 bioanalyzer it can analyze ten, 4  $\mu\text{L}$  samples in less than 30 minutes.

We have the latest version of the Agilent 2100 expert software, which supports the new Series II bioanalyzer assays for RNA, DNA and Protein:

<http://www.chem.agilent.com/Scripts/generic.asp?lPage=38719&indcol=N&prodcol=Y>

Users are welcome to buy their own chips & reagents kits for DNA, RNA or protein assays. For some assays, there may be the option of buying the number of chips & reagents you want to run from us (i.e. rather than ordering a full kit from Agilent), depending on the availability in our lab.

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