



Located at Monash Medical Centre, Clayton, the Gandel Charitable Trust Sequencing Centre was established in 1999. Several complementary services and instruments have since been introduced to the facility, including a Experion automated electrophoresis system that uses microfluidic technology to perform protein, RNA and DNA electrophoresis. The instrument is available to researchers and clinicians within the Monash Health Research Precinct (MHRP) as well as external clients from other Institutes.

Instrumentation

The Experion system automatically performs the multiple steps of gel-based electrophoresis, replacing the need to run SDS-PAGE or agarose gels to separate and quantitate your protein, RNA and DNA samples. Using Caliper Life Sciences' LabChip technology, each chip contains a set of interconnected microchannels for protein and nucleic acid separation and internal standards are used to accurately size and quantitate protein, RNA and DNA. Resultant data is conveniently available as a simulated gel image, electropherogram and tabulated. For further information on the Experion system refer www.bio-rad.com/experion/. Technical bulletins are available upon request.

Major Benefits include:

- Reduced time-to-result, hands-on-time, reagent usage and sample consumption
- Automated data analysis of cell lysates, column fractions and purified proteins or antibodies
- Accurate assessment of RNA purity for gene expression analysis via RT-PCR or microarray
- Automated sizing and quantitation of PCR, RT-PCR and restriction digests

Experion Analysis Kit	Protein 260	RNA High	RNA Std Sens	DNA 1K	DNA 12K
Sizing range	10-260kD			25-1000bp	100-12,000bp
Sizing accuracy	±10%			±10%	±15%
Quantitation range	2.5-2,000ng/ul	100-5,000pg/ul	5-500ng/ul	0.5-50ng/ul	0.5-50ng/ul
Sample wells per chip	10	11	12	11	11
Run time	30 minutes	30 minutes	30 minutes	40 minutes	40 minutes
Sample volume required	4ul	1ul	1ul	1ul	1ul

Service requirements

For DNA and RNA analysis please supply 2ul of each sample in a labelled 1.5ml microfuge tube.
 For Protein analysis please supply 5ul of each sample in a labelled 1.5ml microfuge tube.
 Label tubes numerically with the date and your name please.

Sample Submission

Please contact the facility on the morning analysis is required to arrange a suitable time for you to deliver your samples. Sample processing can be carried out by laboratory staff and data provided on your memory stick or printed.

Data Retrieval

Data is available as a simulated gel image, electropherogram or tabulated in a results table that can be exported onto spreadsheets for customised analysis. The software automatically calculates molecular weight (protein) fragment size (DNA), relative quantitation or absolute quantitation (protein) and ribosomal RNA ratio.

Pricing * (Internal to MHRP):	Protein	RNA	DNA
Per chip:	\$35	\$35	\$37.50
Per sample	\$3.50	\$3.00	\$3.50

* A \$30 sample preparation charge applies to clients external to the MHRP

Comprehensive trouble-shooting and technical advice is available to all researchers and we encourage clients to call or email with any enquiries.

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