

## The Gandel Charitable Trust Sequencing Centre

The Gandel Charitable Trust Sequencing Centre at the Monash Health Translation Precinct (MHTP) provides a NATA accredited DNA sequencing service. The Centre services research Institutes throughout Australia and maintains an excellent reputation for the provision of high quality, long read sequence data and comprehensive client support.

The centre was established in 1999 and operates as not-for-profit. The following platforms are utilised: Applied Biosystems 3130xl Genetic Analyzers, 7900HT Fast RT-PCR Systems and Biorad Experion.

### Services include:

- DNA Sequencing
- Fragment Analysis
- Gene Expression
- RNA, DNA and Protein Analysis

## RNA, DNA and Protein Analysis Service

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 visit [www.bio-rad.com/experion/](http://www.bio-rad.com/experion/)

### 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 HighSens	RNA StdSens	DNA 1	DNA 12K
Sizing range	10-260 kD			15-1,500 bp	50-17,000 bp
Sizing accuracy	±10%			±10%	±15%
Quantitation range	2.5-2,000 µg/ml	200-5,000 pg/µl	25-500 ng/µl	0.5-50 ng/µl	0.5-50 ng/µl
Sample wells per chip	10	11	12	11	11
Run time	30 minutes	30 minutes	30 minutes	40 minutes	40 minutes
Sample volume required	4 µl	1 µl	1 µl	1 µl	1 µl

### Sample submission

Samples should be supplied within the concentration range outlined in the table above.  
 For DNA and RNA analysis please supply 2 µl of each sample in a labelled 0.2 ml microfuge tube.  
 For Protein analysis please supply 5 µl sample in a labelled 0.2 ml microfuge tube.  
 All samples need to be accompanied by a completed Experion request form (available on website) and labelled with sample name (<10 characters) and client name.

Please contact the facility to arrange a suitable time for you to deliver your samples.  
 Training on the system can be provided or sample processing can be carried out for you at an additional fee.

### Data retrieval

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

**Comprehensive trouble-shooting and technical advice is available to all researchers. Clients are encouraged to call or email with any questions.**