



The Gandel Charitable Trust Sequencing Centre provides a NATA accredited DNA sequencing service to researchers and clinicians at the Monash Health Research Precinct (MHRP) and external clients from other Institutes. Located at Monash Medical Centre, Clayton, the facility was established in 1999 and has since developed an excellent reputation for providing high-quality, long read sequence data.

#### Instrumentation

The DNA Sequencing service utilises the latest technology, an Applied Biosystems 16-capillary 3130xl Genetic Analyzer that generates sequence read lengths of approximately 1000 bases.

#### Sequencing and Electrophoresis Service

Upon submission of DNA template and primer our service can perform the DNA cycle sequencing reaction (fluorescent labelling) and electrophoretic separation of the labelled extension fragments.

For each sequencing and electrophoresis sample please provide:

**DNA template with either the 3' or 5' primer together in a total volume (water) of 16 µl.**

Template		Quantity
Primer		3.2 pmol
Plasmid		400ng
PCR product:	100-200bp	10ng
	200-500bp	25ng
	500-1000bp	50ng
	1000-2000bp	100ng

Dilutions (3.2 µM) of the following primers are available from the facility free of charge:

-21 M13 Primer	5' TGT AAA ACG ACG GCC AGT 3'
Reverse Primer	5' TCA CAC AGG AAA CAG CTA TGA C 3'
T3 Primer	5' ATT AAC CCT CAC TAA AGG GA 3'
T7 Primer	5' TAA TAC GAC TCA CTA TAG GG 3'
SP6 Primer	5' TAT TTA GGT GAC ACT ATA G 3'

#### Electrophoretic Separation Service

For clients who have completed the DNA cycle sequencing reaction (fluorescent labelling) and cleanup, samples can be submitted for electrophoretic separation only. Clients submit the dried, labelled, extension products.

#### Sample Submission

Samples can be dropped off in person to the laboratory, sent by courier or mailed. Samples received by 10am each day will be processed in 24 hours. All samples need to be accompanied by a completed DNA sequencing request form (download from website) and labelled; sample name (<10 characters) and client name please.

#### Data Retrieval

Sequence data is available from the FTP site within 1-2 days of sample receipt and a print-out of the first 800 bases is provided for each sample. Each sample generates an .ab1 file and a .seq file (text file).

The ab1 file contains the raw data and analysed electropherogram and can be opened using shareware programs:

**Sequence Scanner (for Windows)** [www.appliedbiosystems.com/sequencescanner](http://www.appliedbiosystems.com/sequencescanner) or

**Ape (for Windows and Macintosh)** [www.biology.utah.edu/jorgensen/wayned/ape/](http://www.biology.utah.edu/jorgensen/wayned/ape/)

<b>Pricing * (External Clients):</b>	Sequencing and electrophoresis:	\$25 (GST excl.)
	Electrophoresis only:	\$10 (GST excl.)

\* Please refer to the sequencing website for high volume and plate format discount schedules

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

**Phone** (03) 9594 3576 **Fax** (03) 9594 7111 **Email** [Sequencingfacility@med.monash.edu.au](mailto:Sequencingfacility@med.monash.edu.au)

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