

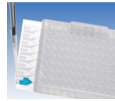


Located at Monash Medical Centre, Clayton, the Gandel Charitable Trust Sequencing Centre was established in 1999. Several complementary services have since been introduced, including a Real-Time PCR service in 2006. This service is available to researchers and clinicians within the Monash Health Research Precinct (MHRP) as well as external clients from other Institutes.

Instrumentation and Assay Systems

The Centre utilises the Applied Biosystems 7900HT Fast Real-Time PCR system. This is a high throughput PCR instrument equipped with Fast 96- and 384- sample blocks, as well as a Taqman® Low Density Array (TLDA) block. Key applications include gene expression quantitation and the detection of single nucleotide polymorphisms (SNPs).

The TLDA is a customizable 384-well microfluidic card, which is designed to perform hundreds of simultaneous real-time PCR reactions. Simple to implement, arrays require minimal sample amounts and do not require liquid-handling robotics or complex pipetting. They allow for 1 to 8 samples to be run in parallel against 12 to 384 TaqMan® Gene Expression Assay targets.



A Corbett Research CAS1200 liquid handling instrument is available for Real-Time 96- and 384- well plate set up, or to assist with associated projects.

Real-Time PCR Service

The service offers access to the 7900HT instrument as well as the accompanying Taqman® and SYBR Green Dye assays. A complete line of reagents and consumables are available for purchase at cost price. TLDA plates, however, must be ordered directly from Applied Biosystems by the user.

The Applied Biosystems Sequence Detection software (SDS) version 2.3 used for 7900HT plate set up and analysis, is available to MHRP members. To obtain a licensed copy please contact the Centre. It enables plate set-up to be completed prior to commencement of the run and analysis to be carried out after the run.

The Centre has a single use license for the Primer Express™ software version 3.0. MHRP members can use the program for primer design. The program is located on the 7900HT Real-Time computer in the Sequencing Facility and a getting started guide is available for new users of the software.

Instrument Bookings

Use of the 7900HT instrument is arranged by a booking system. Enquiries and booking requests can be made by contacting the Centre.

Data Retrieval

Data in simple text form (for use in Excel) can be downloaded onto a memory stick for easy transfer or can be accessed via the FTP site. Additionally SDS files are available for researchers that have the SDS software.

Pricing * (External Clients): Per run: \$50 (GST excl.)

* The run charge is used to cover the annual maintenance service charge for the instrument

Taqman® cost spreadsheets and TLDA cost calculators can be obtained from the Centre.

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

Location:
Room 3-IR-06, Block E, Level 3,
Prince Henry's Institute,
Monash Medical Centre,
Clayton VIC 3168

Mailing Address:
c/- Monash Institute of Medical Research,
Monash Medical Centre,
246 Clayton Road
Clayton VIC 3168

Delivery Address:
c/- Monash Institute of Medical Research,
27-31 Wright Street,
Clayton VIC 3168



For all **Taqman Gene Expression Assays** please visit www.allgenes.com
Information at this site includes:

Taqman® PreAmp Master Mix kit

<http://preamp.appliedbiosystems.com>

Taqman® Gene Expression Assays

>700,000 gene-specific TaqMan® probe and primer sets for quantitative gene expression studies in human, mouse, rat, Arabidopsis, Drosophila, C. elegans, Rhesus macaque, and canine
Delivered in a convenient ready-to-use single tube format and runs under universal cycling conditions
For Gene Expression Assays info. please refer to
<http://docs.appliedbiosystems.com/pebi docs/00115187.pdf>

Custom TaqMan® Gene Expression Assays

Optimized TaqMan® probe and primer sets designed to the target sequence of your choice for any gene in any species using a confidential and secure service. Delivered in a convenient single tube, ready-to-use format, and includes assay file with probe and primer sequences

TaqMan® Endogenous Controls

Optimized, pre-formulated, ready-to-use control assays for human, mouse, rat, and eukaryotes

Custom TaqMan® Probes and Primers

TaqMan® probes and primers synthesized to your stated sequences for any species or organism

TaqMan® Low Density Array

>47,000 inventoried Human, Mouse or Rat TaqMan® Gene Expression Assays are available on a 384-well micro fluidic card format. TLDA's are fully customizable within a certain format using between 12 to 384 assays. Additionally, Applied Biosystems offers pre-defined lists of TaqMan Gene Expression Assays that correlate to genes for a particular disease target class or biological pathway. Refer to <http://tlda.appliedbiosystems.com> to download excel spreadsheet.
For Taqman® Low density Array (Custom) formats, cards/pack (10 or 50 minimum) and part numbers please refer <http://docs.appliedbiosystems.com/pebi docs/00113252.pdf>

TLDA Gene Signature Panels

Economical, off-the-shelf micro fluidic cards contain pre-configured TaqMan Gene Expression Assay sets
Choose from variety of panels for such areas as GPCRs, immune response, and protein kinases
For the list of TLDA Gene Signature panels available (4 cards per pack) please refer
<http://docs.appliedbiosystems.com/pebi docs/00116158.pdf>

More TLDA Information:

Product Bulletin: TaqMan® Low Density Array: TaqMan® Gene Expression Assays Products (Includes part numbers, formats and design instructions)
<http://docs.appliedbiosystems.com/pebi docs/00106393.pdf>

Gene Signature Panels

Brochure: TaqMan Low Density Array Gene Signature Panels
<http://docs.appliedbiosystems.com/pebi docs/00116145.pdf>

User Bulletin: Running TLDA's on the 7900HT Real time PCR System

<http://docs.appliedbiosystems.com/pebi docs/04371129.pdf>

Reference List: TLDAs

<http://docs.appliedbiosystems.com/pebi docs/00112991.pdf>

TaqMan® MicroRNA Assays

TaqMan® Assay chemistry is the gold standard in miRNA quantitation and now can be used in over 856 miRNA assays for human, mouse, rat, Arabidopsis, Drosophila, and C. elegans genes.
Download the miRNA information file at http://www.appliedbiosystems.com/support/miRNA_aif.xls

For all **TaqMan SNP assays**:
<http://www.allsnps.com>

For **Power SYBR Real time PCR mastermix** information:
<http://powersybr.appliedbiosystems.com>