

### Sample submission and prices

For sample submission please send us your tissue samples (min 3mm) via express post in Eppendorf tubes. We cover samples shipping cost, provide barcoded plates/tubes for samples collection. Please submit the samples electronically on our sample submission portal:

#### https://gmg-submit.gimr.garvan.org.au/#/login

Samples are traced in our LIMS system, receiving regular status updates and result release emails. We store extracted DNA for six months.

Our normal turnaround time is 3 to 4 working days but urgent genotyping can be requested delivering results within 24hrs (additional service fee).

# Please send all questions including requests for quotations to gmg@garvan.org.au

You can find our pricing here:

https://www.garvan.org.au/research/ capabilities/molecular-genetics/shop

Please scan the QR code or visit our website at <u>garvan.org.au/gmg</u>







We also offer Sanger Sequencing, DNA/RNA extraction and Cell Authentication Services





We are accredited to NATA ISO/IEC 17025



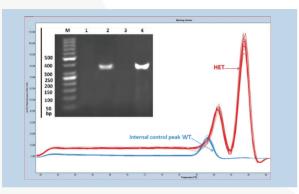
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### **Mouse Genotyping Service**

Garvan Molecular Genetics (GMG) provides high-throughput genotyping services for rodents (or any other GMO).

Our team delivers an all-inclusive service from assay design to data analysis, you only need to send the samples.



SHL PCR (pos/neg)

We use a combination of automated liquid handling robotics and high-resolution melt-curve (HRM) analysis to provide fast, consistent, and accurate results that eliminate human error.

Each PCR is run against specific positive, negative and contamination controls to ensure the reliability of our results. We are the largest genotyping facility in Australia and have been in operation since 2005. In the years since, we have gained the trust of clients across Australia, ranging from corporate to research.

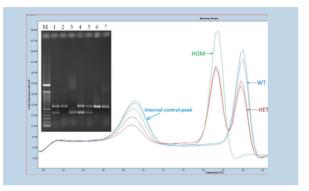
Our not-for-profit, Sydney-based team prides itself on providing a quality, client-focused service with internationally competitive rates and turnaround times. Our nucleic acid extraction laboratories and genotyping laboratories are NATA certified to ISO 17025.

### Want to make the switch to a 100% Australian owned, not-for-profit, genotyping service?

Please contact <u>gmg@garvan.org.au</u> to enquire about our services and free trial for new clients.

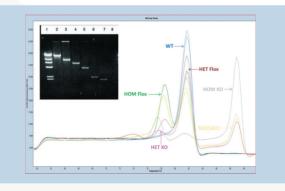
### Melt curve analysis

Melt curve analysis is based on the interaction between DNA and an intercalating dye that generates a fluorescent signal which disappears when DNA samples are heated to their melting temperature. The resulting signal corresponds to traditional gel images. HRM is capable of resolving single base pair changes reliably.



PAC1KO PCR (WT, HET, HOM)

We can detect multiple genotypes in a single PCR reaction.



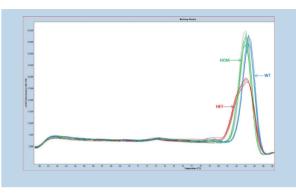
MCC PCR (6 different variants in 1 PCR)

Currently we have over 1200 PCRs established for over 200 different groups across Australia.

HRM is superior to conventional gel analysis as it is a more sensitive method and we can use the absolute quantification results too to determine an unclear result. Therefore, we can differentiate a weak positive sample from a contaminated or inhibited PCR reaction.

## **SNP** analysis

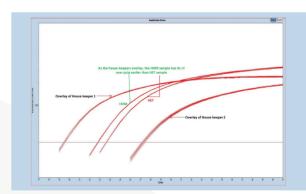
With the same melt curve method we can also genotype SNPs, saving time and costs involved with standard restriction enzyme digestion and gel analysis.



OB SNP PCR (A>G transition)

### **Copy number analysis**

If heterozygous and homozygous transgenic mice cannot be differentiated via standard PCR, we can run a real-time PCR and separate the heterozygous from the homozygous samples via real-time cycle threshold (Ct) values.



Example of copy number results

Homozygous samples have exactly one Ct less than heterozygous samples. Please note that there are additional costs for this service compared to standard genotyping PCRs.