

SANGER SEQUENCING

AGRF offers a full range of Sanger sequencing throughout Australia. Our services have been tailored to be easy to use and reliable, with four points of entry depending on your specific project needs.

All Sanger sequencing services are NATA accredited. You can submit your samples online and drop off samples at your local AGRF Lab or send via post.



SERVICE TYPE

Unpurified PCR Product (PD+): Submit unpurified PCR product for purification and sequencing.

Purified DNA (PD): Purified DNA template (plasmid or PCR product) mixed with the appropriate primer is submitted to AGRF for sequencing.

Unpurified BDT reaction (CS+): You perform the BDT sequencing reaction and submit your unpurified reaction for cleanup and sequencing.

Capillary Separation (CS): You perform the BDT sequencing reaction and submit your labelled DNA as a dried down pellet for resuspending and loading directly onto the AB3730xl instrument.

POINT OF ENTRY

Receipt of PCR amplicons and primer(s)

Receipt of purified DNA template (plasmid or PCR product) and primer mix

Receipt of unpurified labelled DNA

Receipt of labelled DNA in dried down pellet form

SEQUENCING PROCESS

Amplicon purification

DNA BDT labelling (sequencing) reaction

BDT sequencing reaction cleanup

Capillary separation on AB 3730xl

Bioinformatics results analysis

eData delivery via website

Data Delivery

Results from sequencing will be delivered to you in the following formats:

- Raw trace (AB1 file)
- FASTA-formatted quality trimmed Q20 sequence
- Raw, unfiltered basecall sequence in a .seq file
- BLAST results against GenBank (.bn file)
- Batch summary report

PCR Resequencing

If you are planning a large PCR based sequencing project, we can take care of the whole process. This is a customised sequencing service and is commonly used for the identification of somatic mutations and genetic variability, such as SNPs. With our extraction service and custom bioinformatics analysis, we can take you from raw tissue to analysed data.



Our funding partners

AGRF is a not-for-profit organisation supported by the Commonwealth Government infrastructure schemes administered through Bioplatforms Australia.

These schemes include NCRIS, EIF, Super Science Initiative CRIS and NCRIS 2.

SEQUENCING PRIMERS FOR PD SERVICE

The following primers are available for your sequencing reactions at no extra charge

Please supply the recommended template amount in 9uL to enable these primers to be added at AGRF sample reception. Please specify which primer in the 'Notes' section of the 'Submit Samples' area of your Login & label your samples accordingly (e.g. sample1_M13F).

Our commitment to quality

Providing quality genomics services is our top priority

We are accredited by the National Association of Testing Authorities, Australia (NATA), in the field of Medical and Biological testing and operate in compliance with the international standards ISO/IEC 17025:2017 and ISO/IEC 15189:2013.



OLIGO	SEQUENCE	SITE/VECTOR
M13 (-21)_F	TGTAAAACGACGGCCAGT	Common vector primer
M13_R	CAGGAAACAGCTATGACC	Common vector primer
SP6	ATTTAGGTGACACTATAG	SP6 promoter
T3	GCAATTAACCCTCACTAAAGG	T3 promoter
T7prom_F	TAATACGACTCACTATAGGG	T7 promoter
T7term_R	GCTAGTTATTGCTCAGCGG	T7 promoter
pGEX_F	CCAGCAAGTATATAGCATGGCC	pGEX vector
pGEX_R	CTCCGGGAGCTGCATGTG	pGEX vector
eGFP-C_F	CATGGTCCTGCTGGAGTTCGTG	3' end of EGFP
eGFP-N_R	CGTCGCCGTCCAGCTCGACCAG	5' end of EGFP
dsRed-C_F	TGGACATCACCTCCCACAACGAGG	3' end of DsRed1, also suitable for mCHERRY
dsRed-N_R	GATGTCCCAGGCGAAGGG	5' end of DsRed1, also suitable for mCHERRY
CMV_F	CGCAAATGGGCGGTAGGCGTG	Human CMV promoter
LucN_R	CCTTATGCAGTTGCTCTCC	5' end of luciferase

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