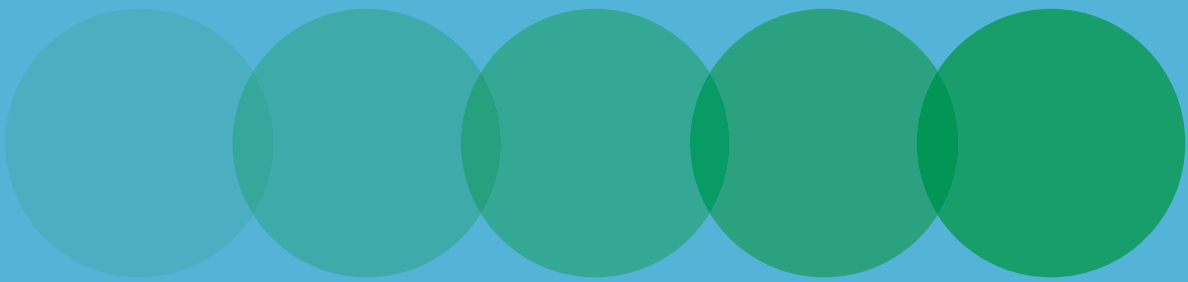


CAPILLARY ELECTROPHORESIS SEQUENCING



DNA Sequencing Service

INTRODUCTIONS

Standard-Seq is highly optimized for high-throughput sequencing of plasmids or PCR products in tubes or 96-well plates. This service provides up to 1,050bp of read lengths with 650bp of QV20 guaranteed using Big Dye chemistry with capillary electrophoresis in ABI 3730xl.

FEATURES

- Free shipping: ≥ 20 reactions
- Read length: ≥1,050bp
- Result delivery within 48 hours
- Real time monitoring from registration to result delivery using LIMS (Laboratory Information Management System)
- Free performing fundamental analysis (investigating homology for the protein and DNA sequence level through BlastN or BlastX)

Difficult Sequencing Service

INTRODUCTIONS

Macrogen provides Difficult Sequencing Service using the protocols we have developed throughout years of experiences. Difficult Sequencing Service is recommended for templates with G/C rich, homopolymers, repetitive regions, and strong secondary structure. Our Diff-Seq reagent can enhance the quality of sequencing results.

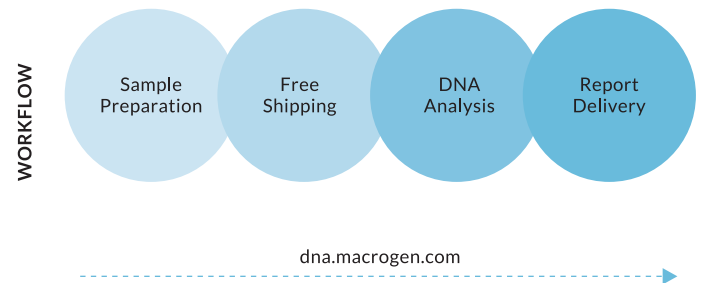
FEATURES

Successful sequencing for:

- High GC or AT
- Unusual secondary structure
- Repetitive sequence
- siRNA with hairpin structure
- Homopolymeric tracts (PolyA, PolyG)

Additional Service

- PCR product Purification Single/Plate
- PCR product Gel extraction
- Primer design and PCR optimization
- Gradient PCR (Customer primer set)
- PCR amplification + purification
- gDNA extraction (Bacteria, fungus, Animal, Plant etc.)



Identification Service

- 16S/18S/26S rRNA & ITS region full seq

INTRODUCTIONS

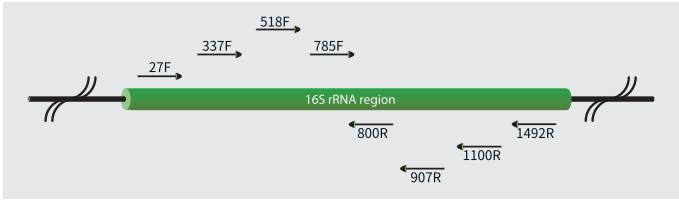
Macrogen can sequence the 16S/18S/26S rRNA & ITS gene from your bacterial/fungal colonies rapidly and effectively. Simply submit your bacterial strains or fungi; we will perform PCR amplification and Sanger DNA sequencing using in house 16S/18S/26S rRNA & ITS primers. No bacterial gDNA extraction is required! We provide all inclusive service performing DNA extraction, PCR, sequencing, and assembly. 1,400bp or longer sequence is guaranteed for domain bacteria.

FEATURES

- Fast & Reliable Turnaround Time: Sequencing data available within 3~4 working days.
- High Quality: Robust 16S/18S/26S rRNA & ITS PCR protocols and high quality sequencing data.
- Superior Customer Service: 24/7 technical support.
- Starting Material: Single bacteria or fungi colony

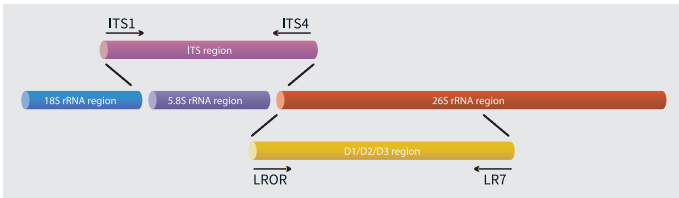
◆ **BACTERIA**

PCR on 16S rRNA using 27F and 1492R primers; and yielding of 1,400bp or more sequencing data using internal primers 785F and 907R. Basic processing will involve usage two primers 785F and 907R. Client will be allowed to select different additional primers for more sequencing reactions.



◆ **FUNGI**

- Analysis on 18S rRNA region sequences; length greater than 1,600 bp guaranteed.
- Analysis on ITS region (18S rRNA prior to update); length greater than 500 bp guaranteed.
- Analysis on 26S rRNA gene(D1/D2/D3 region) length greater than 1,300 bp guaranteed.



Fragment Analysis Service

- Fragment analysis Single/Plate(DS-30, DS-33)
- PCR Optimization + Analysis
- SSR Marker discovery
- PCR amplification & Genescan

INTRODUCTIONS

This service encompasses a wide variety of genotyping, DNA profiling, mutation detection techniques for medical, environmental, and agricultural research. Our experienced scientific team can perform ready-to-run fragment analysis projects to assist your research. This service is performed on ABI 3730xl's for accurate size calling, consistent band intensities, and low run-to-run migration variations.

FEATURES

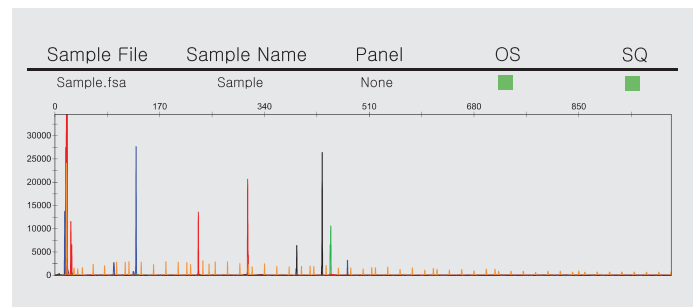
- PCR products with primers fluorescent labelled ran on ABI 3730xl
- Provides FSA result data files
- Provide excel & PDF analysis file upon request
- Turnaround time: 1~5 working days

◆ **AVAILABLE DYE SETS AND STANDARD MARKER**

DYE SET	DS-30	DS-33	Sample labeling dyes
Blue	6-FAM	6-FAM	
Green	HEX	VIC	
Yellow	NED	NED	
Red	-	PET	
Internal Standard Size Marker (Maximum detection size)	350 ROX (350bp)	120 LIZ (120bp)	
	400HD (400bp)	500 LIZ (500bp)	
		600 LIZ (600bp)	
		1200LIZ (1200 bp)	

◆ **WHAT DATA TO RECEIVE?**

3730xl raw data(.fsa), table against allele values analyzed by Genemapper(v.5), peaks of allele(.pdf); domestic service, extra charge_size standard-1,200LIZ

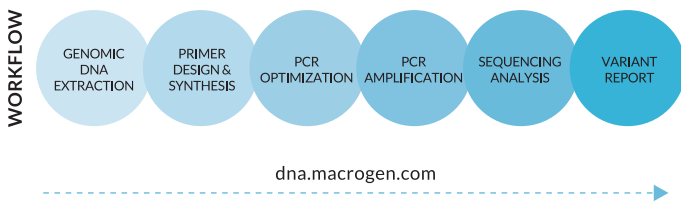


SNP/ Mutation Analysis Service

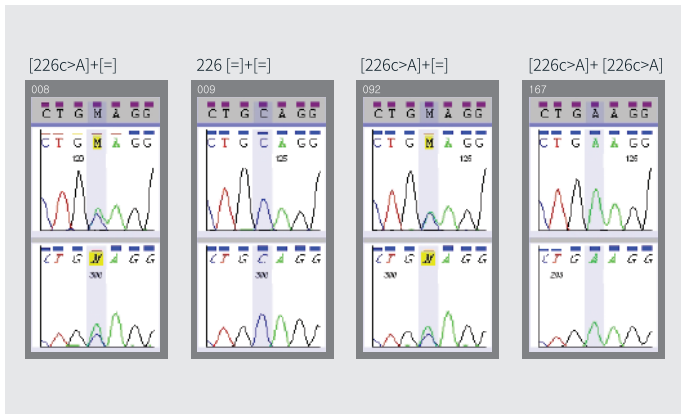
- NGS validation
- SNP discovery analysis
- Targeted mutation analysis
- Targeted gene exom sequencing

INTRODUCTIONS

Our SNP & Mutation Analysis Service will provide you with complete service from genomic DNA extraction to sequencing after arrival of (your sample) of client selected region. Using Macrogen Inc. Sanger sequencing method, we will assist your SNP, mutation analysis which may be used for genomic comparison within the genome and many others. Our service will cover from genomic DNA extraction, target position PCR primer design and synthesis, PCR optimization, PCR amplification, and to sequencing; providing you a complete analysis service with finalized data which could be directly utilized for your research.



◆ REPORT FORM



Cloning Service

If your sequencing data is unsuccessful, you can get improved data by using our Cloning Service. Macrogen Inc. will run cloning PCR products into vector that a customer needs. Depending on what Taq a customer uses, we can insert PCR product into T-vector or blunt vector. Afterwards, we can read the sequence of PCR product through the sequencing reaction.

Primer Walking Service

Primer Walking Service is to read 2~10kb of sequence with PCR product or plasmid DNA that cannot be read fully by single primer extension sequencing. Once performing end sequencing with designated primer by a customer, we design internal primers with reference to end sequence data.

Pyrosequencing Service

- DNA methylation analysis: involves Pyrosequencing analysis for Epigenetic research by quantifying gene-specific CpG methylation of bisulfite converted DNA.
- Somatic mutation analysis: involves targeted Pyrosequencing analysis for genotyping germ-line variant, somatic variant and also low allele frequency SNPs by quantifying nucleotides..

EZ-SEQ(Barcode Sequencing)

EZ-Seq service is a service designed to bring easiness and simplicity in registration process, using barcode labels. It gives you great benefits and reduces your hassles on putting enormous information to create an order. Once you have these labels, you do not need to fill in complicated order forms, or log in to our website to make an order.

Gene Synthesis Service

Save your valuable time and resources that are commonly spent on gene construction ordering Macrogen gene synthesis service. All genes are constructed using the highest quality oligonucleotides from Macrogen. Genes arrive in a plasmid cloning vector and are ready for use in a variety of applications.



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For Online Order

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