



Convert Limitations to **Success** with **1st BASE** Molecular Biology Services

1st BASE specializes in developing start-to-finish research solutions to overcome research limitations such as space constraints, high overhead costs, lack of expertise or limited access to the latest research technologies. We work hand in hand with you to understand your research needs.

Do not let the lack of resources and facilities hamper the progress of your research. Allow our team of seasoned technical experts assist you with a wide range of Molecular Biology Services.

You can rely on our continuous support to ensure the best approaches are selected for the success of your research projects. Every project will also be carefully documented for traceability, accountability and reproducibility.



PCR / qPCR Optimization

Optimizing and troubleshooting difficult Polymerase Chain Reactions. Well suited for re-sequencing projects, gap filling of next generation sequencing data.

Product No.	Description
MBS-2001	PCR Optimization using customer-supplied primer sequences. Includes: Primer synthesis, all PCR reagents and purification. Customer to provide template DNA and positive control template. Terms and conditions apply.
MBS-2002	PCR Optimization using in-house designed primer sequences. Includes: Primer design, primer synthesis, all PCR reagents and purification. Customer to provide template DNA and if possible positive control template.
MBS-2003	PCR Reaction Includes: All PCR reagents and purification. Customer to provide purified gDNA. Price per sample.
MBS-2101	qPCR Optimization using customer-supplied primer and/ or probe sequences. Includes: Primer synthesis, generate standard curve per gene (1 non-template control, 5 data points – serial dilutions of template, duplicates). Terms and conditions apply.
MBS-2102	qPCR Optimization using in-house designed primer and/ or probe sequences. Includes: Primer synthesis, generate standard curve per gene (1 non-template control, 5 data points – serial dilutions of template, duplicates). Terms and conditions apply.
MBS-2103	qPCR reaction. Duplicate reactions for each run. Price per run. Deliverables: qPCR raw data (Ct value, amplification curve or/ and melt curve)
MBS-2104	Data analysis for qPCR project. Price per project

Sub-cloning | Sub-cloning of gene into your vector of choice

Product No.	Description
MBS-3001	Subcloning Service (up to 1.5kb) Includes: Subcloning of an insert from its original holding plasmid or a gene synthesis product into customer supplied vector, colony PCR screening and DNA sequencing for confirmation.

PCR Product Cloning | Cloning of unpurified PCR products into our standard vectors

Product No.	Description
MBS-3002	PCR Product Cloning Service (up to 1.5kb) Includes: Cloning of unpurified PCR product into pJET1.2/ Blunt or pBASE-1 vector, colony PCR screening and DNA sequencing for confirmation.
MBS-3003	PCR Product Cloning Service (3kb to 5kb) Includes: Cloning of unpurified PCR product into pJET1.2/ Blunt or pBASE-1 vector, colony PCR screening and DNA sequencing for confirmation.
MBS-3005	Additional screening for positive clone. Price per screen (24 colonies picked).

Plasmid Preparation | Plasmid Preparation to upscale yield to desired amount and purity

Product No.	Description
MBS-4001	Custom Bacterial Plasmid Miniprep Service Includes: Transformation into <i>E.coli</i> cells, Culture of Bacteria and Plasmid purification using commercial kits. Final Product: Minimum yield of 10µg of DNA per preparation
MBS-4002	Custom Bacterial Plasmid Midiprep Service Includes: Transformation into <i>E.coli</i> cells, Culture of Bacteria and Plasmid purification using commercial kits. Final Product: Minimum yield of 50µg of DNA per preparation

MBS-4003	Custom Bacterial Plasmid Maxiprep Service Includes: Transformation into <i>E.coli</i> cells, Culture of Bacteria and Plasmid purification using commercial kits. Final Product: Minimum yield of 100µg of DNA per preparation
MBS-4004	Plasmid Preparation Service Bacterial stab culture, price per tube. Shipped in blue ice conditions.
MBS-4005	Plasmid Preparation Service Bacterial glycerol stock, price per tube. Shipped in dry ice conditions.

Species Barcoding

Suitable for Species Identification of Bacteria, Plant, Fungi and Animal. Please enquire for other organisms.

Product No.	Description
MBS-5001	Bacterial Species Barcoding, v4-v6 region of 16 sRNA, partial sequence (~ 600 bp). Includes: <ul style="list-style-type: none"> ■ Extraction of gDNA, PCR amplification and Purification ■ Bidirectional PCR product sequencing ■ Data analysis (BLAST to show the top 10 matches from database).
MBS-5002	Bacterial Species Barcoding, full length of 16s rRNA (~ 1400bp) Includes: <ul style="list-style-type: none"> ■ Extraction of gDNA, PCR amplification and Purification ■ Bidirectional PCR product sequencing ■ Data analysis (BLAST to show the top 10 matches from database)
MBS-5003	Plant Species Barcoding, rbcL (~ 600bp) and matK (~850 bp) Includes: <ul style="list-style-type: none"> ■ PCR amplification and Purification ■ Bidirectional PCR product sequencing ■ Data analysis (BLAST to show the top 10 matches from database)
MBS-5004	Fungal Species Barcoding, ITS (~700 bp) Includes: <ul style="list-style-type: none"> ■ Extraction of gDNA ■ PCR amplification and Purification ■ Bidirectional PCR product sequencing ■ Data analysis (BLAST to show the top 10 matches from database)
MBS-5005	Animal Species Barcoding, COI (~700 bp) Includes: <ul style="list-style-type: none"> ■ PCR amplification and Purification ■ Forward Single Pass Sequencing of cloned DNA ■ Data analysis (BLAST to show the top 10 matches from database)
MBS-5006	Eukaryote Species Barcoding, 18s rRNA, full-length sequence (~1800bp) Includes: <ul style="list-style-type: none"> ■ PCR amplification and Purification ■ Primer walking of Cloned DNA ■ Data analysis (BLAST to show the top 10 matches from database)
MBS-5101	Bacterial Species Barcoding from mixed isolates, v4-v6 region of 16 sRNA, partial sequence (~ 600bp) Includes: <ul style="list-style-type: none"> ■ Cloning and 8 positive clones send for Forward Single Pass Sequencing ■ Data analysis (Alignment & BLAST to show the top 10 matches of each isolate from database)
MBS-5102	Bacterial Species Barcoding from mixed isolates, 16 sRNA, full-length sequence (~ 1400 bp) Includes: <ul style="list-style-type: none"> ■ Cloning and 8 positive clones send for Bidirectional Sequencing ■ Data analysis (Alignment & BLAST to show the top 10 matches of each isolate from database)
MBS-5104	Fungal Species Barcoding from mixed isolates, ITS (~ 700 bp) Includes: <ul style="list-style-type: none"> ■ Cloning and 8 positive clones send for Forward Single Pass Sequencing ■ Data analysis (Alignment & BLAST to show the top 10 matches of each isolate from database)
MBS-5200	Species Barcoding gDNA mini prep (for plant, bacteria, fungus), including solutions A and B
MBS-5201	Species Barcoding gDNA mini prep (for animal), including solutions A, TP, and B

DNA / RNA Preparation and Analysis Services

Simplify your sample preparation steps

Product No.	Description
MBS-6001	DNA Preparation Standard Genomic DNA (gDNA) Extraction. Price per sample.
MBS-6002	DNA Analysis & Preparation DNA digestion using specified Restriction Enzyme (RE). Price per sample.
MBS-6003	DNA Preparation Dephosphorylation of linearized destination vector and purification.
MBS-6005	DNA Preparation DNA Shearing by Sonication and PCR Clean-up
MBS-6006	DNA Preparation Blunting and Phosphorylation of Double-stranded DNA (100 – 2500 bp) and PCR clean-up
MBS-6007	DNA LabChip Analysis DNA, double-stranded, fragmented, size 25 to 1000 bp. Price per chip (up to 12 samples)
NEW MBS-6008	DNA Preparation Purification of Genomic DNA (gDNA) to remove impurities that inhibits PCR. Price per purification.
MBS-6100	RNA LabChip Analysis Total RNA (25 to 500 ng/uL), Eukaryotic, 18S and 28S, size 25 - 6000 bp. Price per chip (up to 12 samples).
MBS-6101	RNA LabChip Analysis Total RNA (25 to 500 ng/uL), Prokaryotic, 16S and 23S, size 25 - 6000 bp. Price per chip (up to 12 samples).
MBS-6102	RNA LabChip Analysis Total RNA (25 to 500 ng/uL), Eukaryotic (Plant), 18S and 25S, size 25 - 6000 bp. Price per chip (up to 12 samples).
MBS-6103	RNA Preparation (up to 100mg) Standard RNA Extraction for up to 100mg of Tissue Sample.
MBS-6104	RNA Preparation Reverse Transcription PCR: First-strand cDNA (cDNA/RNA heteromer) synthesis by oligo(dT), using customer provided purified total RNA. Includes primer synthesis and gel photo of 2µl reaction mix.

Human Genomic DNA Extraction Service

Product No.	Description
MBS-7100	Blood Sample Preparation gDNA extraction. Price per sample.
MBS-7200	Saliva Sample Preparation gDNA extraction. Price per sample.

Other Services

Product No.	Description
MBS-8001	Single Pass Primer Walking > 7kb , price per base. Includes: <ul style="list-style-type: none"> ■ Plasmid Preparation ■ Primer design and synthesis ■ Sequencing using designed primer ■ Assembly and sequence alignment
MBS-8002	Bi-directional Primer Walking > 7kb , price per base pair. Includes: <ul style="list-style-type: none"> ■ Plasmid Preparation ■ Primer design and synthesis ■ Sequencing using designed primer ■ Assembly and sequence alignment

MBS-8004	<p>Fragment Assembly, price per project.</p> <p>Includes:</p> <ul style="list-style-type: none"> ■ Fragment Assembly ■ Cloning ■ Sequencing of insert
MBS-8005	<p>Genome Walking, price per project. Up to 1kb upwards and downwards flanking the known GOI.</p> <p>Includes:</p> <ul style="list-style-type: none"> ■ Validation of the presence of GOI ■ RE digestion of gDNA ■ Ligation of overhang primers ■ PCR, Cloning, Sequencing
MBS-8006	<p>Site-directed Mutagenesis (SDM), Price per mutation (any mutation within 50 bases).</p> <p>Includes:</p> <ul style="list-style-type: none"> ■ Design and synthesis of PCR primers ■ Mutagenesis of target gene, subclone to customer provided vector ■ Sequencing result

1st BASE Custom Research Services

We understand that life science research often requires specifications unique to the nature of the research and such options may not always be available. Outsourcing your projects eliminates common limitations like lab space constraints, high overheads, lack of manpower, not having the expertise or equipment etc. If you cannot find what you need or require some added features or services specific to your experiment, 1st BASE Custom Research Services (CRS) can help tailor these specifications to your needs.

At 1st BASE, our experienced CRS team provides technical expertise to a wide range of services. Each project is supplied with proper and detailed documentation for accountability upon completion. Be assured that all information will be kept in full confidence, with our customer holding the exclusive rights to all intellectual property pertaining to the project.

Contact us for more information for your customized project.

Custom Research Services Workflow



1st BASE Molecular Biology Services Proviso

1st BASE will not accept any samples that are or suspected to be pathogenic in nature. Customers need to declare if their pathogenic samples are no longer infective and/or they have inactivated their pathogenic samples prior to project acceptance.

How to Order?

Visit www.base-asia.com/molecular_biology_services/ to find out more about services available as well as sample preparation guidelines.

You may also find our Service Order Forms from www.base-asia.com/molecular_biology_services/how_to_order/

Sample Submission Format for Bacterial and Fungal Species Barcoding Services

No.	Description	Images	Shipment Condition
1	Cut agar* (5mm square) contains bacteria/fungus in 1.5mL centrifuge tube. Triplicates. *as little agar as possible		Room Temperature
2	Spin down 1 - 2mL of liquid culture in 1.5mL centrifuge tube. The size of the cell pellet is about 50µL. Triplicates.		Dry Ice
3	Apply <125µL of liquid culture directly on FTA card (Note: the FTA card can be provided at separate charge).		Room Temperature

*Biosafety Declaration Form is required for every Bacterial/ Fungal Species Barcoding order. You may obtain the form from your sales representative or download the form from the link below:

www.base-asia.com/downloads/products/MBS/MBS_BioSafety_Declaration_Form_V2.docx



www.firstbaselab.com

First BASE Laboratories Sdn Bhd

No 7-1 to 7-3, Jalan SP 2/7, Tmn Serdang Perdana,
Seksyen 2, Seri Kembangan 43300, Selangor, Malaysia

Tel: +603 8943 3252 Fax: +603 8943 3243

Email: mbs-my@base-asia.com (Malaysia)

mbs@base-asia.com (International)