

MOLECULAR BIOLOGY SERVICES



- **Nucleic Acid Extraction**
- **Plasmid DNA Preparation**
- **cDNA Synthesis**
- **Mutation Analysis**
- **Microbial Identification**
- **PCR & Real Time PCR Services**
- **Genotyping & DNA Barcoding**
- **Sequencing Services**



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NUCLEIC ACID EXTRACTION

The first step in any study investigating genetic differences in an organism of interest is the purification of the nucleic acid extraction. We at Allele Life Sciences provides DNA and RNA extraction services to meet the demands of any project.

Our range of nucleic acid extraction services includes high quality DNA and RNA extraction solutions for wide array of molecular biology applications.



OUR ADVANTAGE :

- Cost-effective services
- Extensive experience isolating DNA, total RNA, mRNA and miRNA
- Extensive expertise in extraction procedures
- Dried in SpeedVac, Quality Control in Bio-analyser (Agilent)
- High-throughput
- Best customer service

DNA EXTRACTION SERVICE :

Type of Material	Input	Yield	Application
Blood	1 ml	5 ug	All DNA Applications
Tissue	30 - 35 mg	5 - 10 ug	All DNA Applications
Plants	50 mg	5 - 10 ug	All DNA Applications
Saliva	500 ul	2 ug	All DNA Applications
Bacteria	1 ml	5 - 10 ug	All DNA Applications

RNA EXTRACTION SERVICE :

Type of Material	Input	Yield	Application
Blood	1 ml	5 ug	All DNA Applications
Tissue	30 - 35 mg	5 - 10 ug	All DNA Applications
Plants	50 mg	5 - 10 ug	All DNA Applications

- **Extraction of Nucleic Acids for Forensic Sample Analysis**
- **mRNA &miRNA Purification Service is available**

PLASMID DNA PREPARATION

Plasmid DNA Preparation services are critical factors for any plasmid purification procedure. Our Plasmid DNA Preparation teams provide high quality plasmid with reliable, microgram to milligram range. We provide our best for a reliable and satisfying experience for our customers.



OUR SERVICES

Our experienced scientists are committed to deliver large and small scale sequencing projects.

- **Flexible Plasmid Preparation**
- **Extremely low levels of endotoxin**
- **Cost Effective & Quality Assured**
- **Flexible sample formats**

SCALE	CULTURE VOLUME	Yield
Mini Prep	5 to 10 ml	1.5 ug to 5 ug
Midi Prep	50 to 100 ml	15 ug to 50 ug
Maxi Prep	100 to 250 ml	100 ug to 500 ug
Mega Prep	500 ml to 2.5 L	500 ug to 2.5 mg

PLASMID SERVICE APPLICATIONS :

We undertake the whole project for plasmid preparation services . We follow the standard protocols for different arrays for plasmid preparation :

- **PCR & Sequencing**
- **Molecular Cloning**
- **Mutagenesis & Library Construction**
- **Hybridisation & Labelling**
- **Immunisation studies**
- **Preclinical studies**

When requesting a quote for the plasmid DNA preparation services, please specify:

- **Quantity of plasmid DNA :** Starting anywhere from 10 µg to 10 mg (high-copy)
- **Storage condition:** water, TE buffer or dry
- **Quality grade:** Research Grade or Transfection Grade

cDNA SYNTHESIS, CLONING & MUTATION SERVICE

Allele Life Sciences offers Gene Cloning Services using any DNA sequence of your specification. We will design primers for PCR amplification of the desired sequence from your DNA source (plasmid, or cDNA). The PCR product will be cloned directly into a T/A cloning vector or digested with restriction enzymes and sub cloned into the plasmid vector of your choice All PCR products will be sequenced (both DNA strands) to ensure sequence integrity.



CLONING SERVICES

Our experienced scientists are committed to deliver best cloning and expression projects.

- **High Quality cDNA Synthesis;First strand cDNA : 0.1 micrograms of RNA. ||
Second strand cDNA**
- **Site Directed Mutagenesis**
- **RACE Cloning Service**
- **PCR Cloning & Sub Cloning**
- **Cloning of synthetic gene**

OUR ADVANTAGE :

We undertake the whole project for cloning services . We follow the standard protocols for different arrays for analysis :

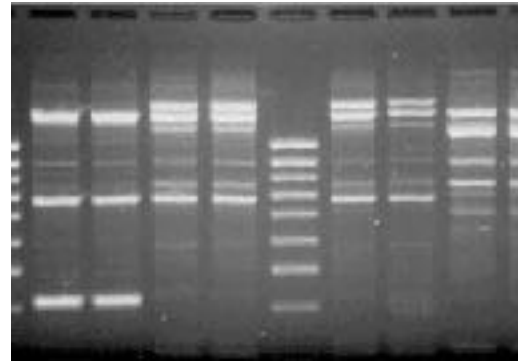
- **Reliable verification of clones by sequencing**
- **High throughput and multiple fragment cloning**
- **In-house construction and Plasmid purification**
- **Template DNA or RNA, or their description**
- **Sequence and description of the DNA to be cloned.**
- **Vector description**
- **Primer design for PCR or RT-PCR**
- **Cloning into the vector of your choice.**
- **Sequencing of target DNA in both directions.**

VERIFICATION OF CLONING :

We provide high quality cloning service at very competitive price. All clones are sequenced verified and guaranteed error-free.

GENOTYPING & DNA BARCODING

Allele Life Sciences services include RAPD, SSR, ISSR, SNP, STR and RFLP, Barcoding based methods to fingerprint (genotype) individuals. The genotypic information is used for plants, bacterial, animal identification, paternity analysis, and forensic analysis. We provide our best for a reliable and satisfying experience for our customers.



GENOTYPING ANALYSIS SERVICES

Our experienced scientists are committed to deliver reliable and reproducible data through molecular marker analysis.

SERVICES WE OFFER :

- DNA extraction from blood, plants, tissue, etc.
- PCR assay design and validation for molecular markers
- Inventory with wide range of molecular markers
- In-silico analysis of molecular markers
- Reproducible Data
- Data analysis and comparison with reference samples

GENOTYPING ANALYSIS :

We undertake the whole project for sequencing services

- PCR based Analysis - RAPD, SSR, ISSR
- Sequencing based analysis - SCAR marker Analysis
- Non PCR based Analysis - RFLP
- QTL Analysis

OUR SOLUTIONS :

We undertake the whole project for genotyping services

- Microsatellite Analysis
- DNA Barcoding
- Copy Number Variation Analysis
- DNA sample identification

PCR & REAL TIME PCR ANALYSIS

Allele Life Sciences offers PCR & Real Time PCR services and other tools specifically for genotyping and genetic variation research, from isolating and purifying genomic DNA, selecting probe and primers, DNA amplification, performing allelic discrimination, and analysing data

We provide our best for a reliable and satisfying



SERVICES WE OFFER:

Our experienced scientists are committed to deliver best PCR and Real Time PCR projects.

- **Molecular Diagnostics - PCR & Q-PCR Analysis**
- **Genetic Variation Analysis**
- **Mutation Detection / G.M.O Analysis**
- **microRNA & Noncoding RNA Analysis**
- **Protein Analysis Using Real-Time PCR**
- **Allelic discrimination run**
- **Real Time PCR Plate run**
- **DNA / RNA Isolation , quantitation, and Quality Assessment**
- **Reverse transcription**
- **Primer design, synthesis, and validation**
- **Real-time PCR assays (SYBR-green and Taq Man)**
- **Data Analysis**

OUR REAL TIME PCR SERVICE ADVANTAGE :

We undertake the whole project for PCR & Q-PCR services . We follow the standard protocols for different arrays for analysis :

- **Reliable Data**
- **Quick Turnaround**
- **Capacity to run 300 sample / day**
- **Platform - ABI 7900, Eurofins, Biorad**

Data Analysis

Data analysis services include delta-delta Cts values and graphical presentation of genes with unique expression and differential regulation patterns.

META-GENOMICS ANALYSIS

Meta genomics is the study of genomic content in a complex mixture of microorganism. We provide meta genomics services for Biotech , Environmental , Medicine , Agriculture , Bio-Energy Microbial Forensic Research and analyse a diverse variety of samples and sample matrices.

16S rDNA based molecular identity || RFLP based molecular protocol || Identification of bacteria in a consortium || Phylogenetic Traits



OUR SERVICES

The primary goals of Meta-Genomics are to characterise the organisms present in a sample and to identify what roles these organism may have within a specific environment. Using NGS it is possible to study microbial communities by sequencing the gene of choice (e.g. 16S, V3, V4 regions) or the whole genome or transcriptome without the need for culturing:

TAXONOMIC PROFILING :

Microbial communities can be characterised by sequencing hyper-variable regions of 16s / 18s rRNA. We provide 16s / 18s rRNA microbial identification services for research projects .

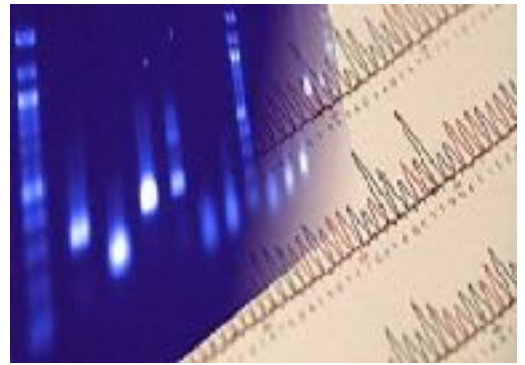
16s/18s rRNA based molecular identity || Identification of bacteria in a consortium || Phylogenetic Tree

WHOLE GENOME SHOTGUN SEQUENCING

Metagenomic Whole Genome shotgun sequencing helps to evaluate and to detect the abundance of microbial diversity under various conditions. It can provide information not only on species composition and abundance, but also on functional genes, gene differences between samples, metabolic pathways and gene resource mining for bioactive products.

SEQUENCING PROJECTS

Allele Life Sciences provides DNA sequencing services with innovative instruments and reagents. The value for our service is conveyed through affordable prices and fast turnaround, stringent quality control, prompt tech support and convenient primer synthesis. We provide our best for a reliable and satisfying experience for our customers.



SERVICES WE OFFER

Our experienced scientists are committed to deliver large and small scale sequencing projects.

- **Primer Walking Service**
- **16/18s rRNA sequencing Analysis**
- **Difficult DNA Templates Sequencing**
- **Cloning Service For Sequencing Projects**
- **SNP Discovery Service**
- **Mutagenesis Sequencing Service**
- **Real Time PCR Analysis**
- **Microarray Analysis**

OUR SEQUENCING SERVICE ADVANTAGE :

We undertake the whole project for sequencing services . We follow the standard protocols for different arrays for sequencing :

- **Nucleic Acid Extraction & Quality Analysis**
- **PCR Amplification & Purification**
- **Primer Design & Synthesis**
- **Plasmid DNA Preparation**
- **Cloning & Sub Cloning**
- **Mutagenesis of target gene, sub-clone to customer provided vector**
- **Sequencing using designed primer**

Data Analysis

This option authorises ALS/CGRF to review the chromatogram, manually edit sequencing results and deliver aligned format. Sequencing results will be aligned with reference sequence if submitted.

Terms & Conditions

Services: The Sample Submittal Form specifies the service requested by Customer and the information needed by Allele Life Sciences to perform the services. The provision of the Services is governed solely by the terms and conditions of this Agreement. Allele Life Sciences will provide the results in the time requested by Customer, unless otherwise notified by Allele Life Sciences . Customer cannot cancel an order if Allele Life Sciences has commenced the Services. In the event that the Customer has requested a retest of the sample and the repeat testing reveals that the initial result (i) is not the result of laboratory error, failure or omission or (ii) arises from a lack of validation with the product sample matrix and/or extraction method, Allele Life Sciences will charge Customer 75 % of the list price of the procedure utilized. Conversely, if the retest reveals laboratory error, failure or omission, there is no charge for the repeated test.

Pricing: The prices for the Services provided Allele Life Sciences shall be determined by the nature of the Services provided and will be agreed upon by Customer and Allele Life Sciences prior to the initiation of the Services.

Payment: Allele Life Sciences will charge 75 % in advance against the invoice raised to the customer and remaining 25 % at the time of delivery of results.

Limited Warranty: Allele Life Sciences will examine the samples using techniques in accordance with life sciences / pharmacopoeial monographs, where applicable. In the event that Allele Life Sciences breaches this warranty, Customer's sole remedy is a full refund of the fee for the Services and to have the sample re-analyzed at no cost to Customer. The warranty is void if the information provided to Allele Life Sciences in the Sample Submittal Form is not accurate or complete .

Limitation of Damage: Allele Life Sciences maximum liability shall not exceed the amount paid for the services .

Jurisdiction: Any dispute, claim or controversy between the parties arising out of or relating to this Agreement shall be submitted to the jurisdiction of Delhi court.

Miscellaneous: This Agreement and the Sample Submittal Form are the complete and exclusive statement of the agreement between Allele Life Sciences and Customer and supersedes any proposal, prior agreement, oral or written, and any other communications between the parties. The warranty provided in this Agreement is for the benefit of Customer and Customer may not pass the warranty on to any third party.

Signed By Both The Parties

NON DISCLOSURE AGREEMENT

It is the desire of the first and second party to have share information and have discussions relative to investigating the feasibility and advisability of preparing and conducting clinical studies or any other business related activities. In the course of those discussions, both parties may be disclosing to each other, information regarded as being confidential or proprietary. For purposes of this Agreement, all information exchanged which is regarded as confidential or as being otherwise proprietary in nature shall be collectively referred to herein as "Confidential Information." The existence of this Agreement and the terms set forth herein shall be considered Confidential Information.

Accordingly, for mutual protection, we ask that this Agreement be reviewed and executed prior to exchanging any Confidential Information by meeting or by any other arrangement. It is understood that all Confidential Information provided pursuant to the terms hereof, which the disclosing party regards as being confidential or proprietary, shall be identified or marked as "Confidential." Oral disclosures of Confidential Information shall be confirmed by reducing the disclosures to writing and providing the writing to the receiving party within thirty (30) days from the date of the oral disclosure.

With respect to all Confidential Information disclosed to each other by both parties, during the term of this Agreement, the party receiving same hereby agrees to keep, hold, and maintain in confidence all such Confidential Information, of every kind and character, and not to disclose, directly or indirectly, to any third party, or otherwise make use of said Confidential Information other than as contemplated by this Agreement, without the prior written consent of the disclosing party, except that the receiving party may disclose Confidential Information to those of its agents, consultants, and legal and financial advisors (collectively "Representatives") who have a need-to-know such information for the purposes hereof and who are bound by like obligations of confidentiality and non-use.

The obligations of confidence and non-use assumed by both parties to this agreement, hereunder **shall not apply to:**

- information which at the time of disclosure is in the public domain; or
- information which thereafter lawfully becomes a part of the public domain other than through disclosure by or through the receiving party; or
- information which is already in the possession of the party receiving same as shown by its written record; or
- information which is lawfully disclosed to either party by a third party not under an obligation of confidentiality to the disclosing party with respect to said Confidential Information; or information which is subsequently developed by an employee or agent of the receiving party without actual knowledge of the disclosure; or
- information which the receiving party must disclose pursuant to applicable laws, regulations or court order, provided that the receiving party gives the disclosing party reasonable notice of its intent to disclose such information. information which is disclosed by the recipient with the written approval of either of the aforesaid parties.

Neither party shall use the name of the other party in any discussions with third parties (other than Representatives), advertising, press release, sales literature, or fundraising efforts without the prior written consent of the other party. In the event the disclosing party gives the receiving party prior written consent to disclose Confidential Information received from the disclosing party to any third party, other than Representatives, the receiving party hereby agrees to obtain written agreements from any such third party to whom the receiving party discloses such information, similar in form and substance to this Confidentiality Agreement, for the benefit of the disclosing party.

This Agreement is entered for a period of three (3) years from the date of signing of this agreement and is governed by and shall be construed in accordance with the laws of India.

By signing this agreement, both parties confirm that the terms contained herein are acceptable to them.

SAMPLE SUBMISSION FORM

CUSTOMER INFORMATION

Name :

Address :

Phone :

E.mail :

SAMPLE INFORMATION

#	Analysis Required	Sample Information	No. of Samples	MSDS
				Y/N

ANALYSIS INSTRUCTION

AUTHORIZATION SIGNATURE

DATE

For Office Use Only	Comment	
Received By		Date
Forwarded to		Date

MSDS QUESTIONNAIRE

Description of Sample(s):	
Material Composition/List of Ingredients?	
Is License required to handle sample?	
Is the sample a Biological Agent?	
Is Sample Radioactive?	
Physical Characteristics?	
Hazard/Transportation Labels?	
Does your Institution specify any specific Personal Protective Equipment (PPE) to your staff for handling sample(s)?	
Does your company specify any specific Sample Containment?	
Does your company specify any specific Sample Containment?	

OTHER INSTRUCTION



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