



OUR PRODUCTS

ANTIBODY | PROTEIN | ELISA | PCR CONSUMABLES | MOL BIO KITS | NGS KITS | PLASTICWARE
ORGAN ON A CHIP | 3D BIO PRINTER | BIO INKS | ECM | LIPIDS | BIOCHEMICALS

OUR SERVICES

CUSTOM ANTIBODY | PROTEIN | GENE SYNTHESIS | PEPTIDE | VECTORS | shRNA | CRISPR | VIRUSES

About Us

Welcome to Bio Genomics Asia !!! Bio Genomics Asia is committed to the marketing, selling and servicing of wide range of technological products which are being successfully used by Life Science Research Industry, Clinical Diagnostics, and Pharmaceuticals (QC/R&D/CROs) spread all over India. Customer delight is the focus of all activities and we are well equipped to rapidly pick up leadership position in the markets we operate. Headquartered in Chandannagar, West Bengal, India, 40 Km from airport, is determined to become one of the fastest growing company in the country. The Company has core team members who are scientifically abreast of the changes in the scientific community and have sound knowledge to guide customers about their ever growing and changing demands. Our speciality products are extensively used by leading research laboratories, QC Microbiology & R&D departments of all sterile and non-sterile pharmaceutical and biotechnology organizations, Testing Houses, CRO's and Research Institutes spread all over India. Our unique business model based on focussed approach and cross-selling helps us to rapidly scale business volumes for all our foreign associates in all these 3 market vertical's. Our market spread is addressed by our well qualified and trained Team, including select distributors, totalling to almost 30 active team members located all over India.

Our Mission

At Bio Genomics Asia, our mission is to deliver exceptional customer service with unmatched speed and efficiency. We are committed to serve the Scientific Community with our prompt service, effective solutions to every inquiry and concern, ensuring that our customers always feel valued and heard. By prioritizing responsiveness and clear communication, we strive to exceed expectations and build lasting relationships based on trust and satisfaction. Your experience is our top priority, and we are dedicated to being there for you, every step of the way.

Our Vision

At Bio Genomics Asia, our vision is to be the leading supplier and developer of innovative products that advance life science research and biochemistry. We are dedicated to pioneering cutting-edge ingredients and biochemicals that drive scientific discovery and enhance research outcomes. By fostering a culture of innovation and excellence, we aim to empower researchers and institutions with the tools they need to push the boundaries of knowledge and make groundbreaking advancements in the life sciences.

Contact Us

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West Bengal, India, 712136

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Bangalore, Karnataka, 560072

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✉ info@biogenomicsasia.com

🌐 www.biogenomicsasia.com

Our Principals



VectorBuilder





Exploring the Mysteries of Life Science with You

Reagents

ELISA Kit



3000+ ELISA kit

Protein



750+ Protein

- ◆ CD antigen
- ◆ Fc & Fc receptor
- ◆ Immune checkpoint
- ◆ Cytokines & Cytokine receptor

Molecular Biology



100+ Molecular enzymes

- ◆ RNA & DNA modifying enzymes
- ◆ PCR & RT-PCR & qPCR & RT
- ◆ Ligase & Endonuclease & seamless Cloning

NGS



Illumina / MGI platform

- ◆ DNA library Prep Kit / Adaptor
- ◆ RNA library Prep Kit / Adaptor

Antibodies

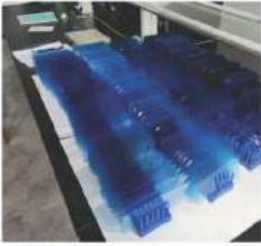


15000+ Antibodies

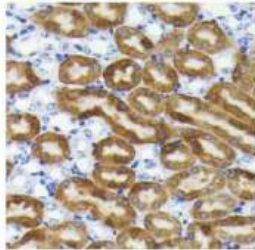
- ◆ Validated antibodies
- ◆ Rabbit mAb
- ◆ Rabbit pAb
- ◆ Mouse mAb
- ◆ Acetylated antibodies
- ◆ Methylated antibodies
- ◆ Phosphorylated antibodies
- ◆ Label Reference substance Secondary antibodies

In-house Validation for Multiple Applications

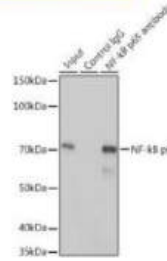
WB validation



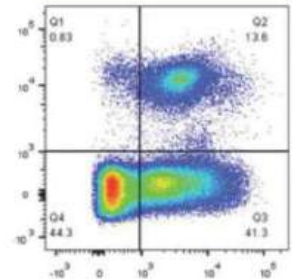
IHC validation



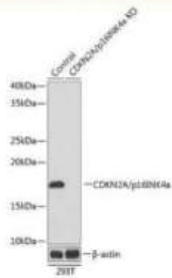
IP validation



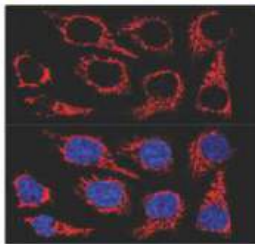
FC validation



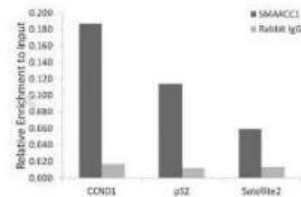
Validation with KO sample



IF validation



CHIP validation



Featured Products and Top-sellers Related Research Area

Cell Biology Research

- ◆ Cell type specific markers
- ◆ Organelle and subcellular markers
- ◆ Cell cycle and DNA damage
- ◆ Cell stress regulation
- ◆ Cytoskeleton

Cancer Research

- ◆ Cell adhesion molecules
- ◆ ECM & EMT
- ◆ Cancer metabolism
- ◆ Cancer biomarkers
- ◆ Cancer therapy targets

Immunology Research

- ◆ Immune phenotyping markers
- ◆ Rabbit mAb pairs for ELISA

Neurology Research

- ◆ Neural lineage markers
- ◆ Biomarkers for neural disorders

Metabolism Research

- ◆ Metabolic enzymes

Epigenetic and Transcriptomics

- ◆ RNA biology (m6A, RBP)
- ◆ Transcriptional factors

Antibody Library for Model organisms

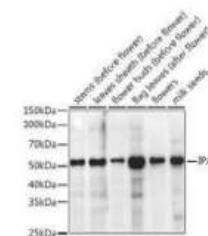
Specific antibodies for other model organisms (e.g. rice, corn, blue mustard, fruit flies, zebrafish) keep increasing and we have built antibody library for model organisms.

Note: Rice model organism antibody library is ready to proceed.

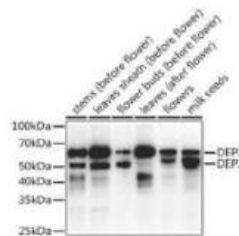
Type	Examples
Plant Architecture	SLR1, OsBZR1, OsRGA1, OsRGB1, NAL1, GID1, OsGSR1/GW6, IPA/OsSPL14, OsDLT, TE/TAD1, LIC1, DEP1, MOC1, SD1
Heading Date	DTH8, Ehd1, EL1/Hd16, Ghd7.1/DTH7, Hd1, Hd3a/OsFT, OsELF3, OsHAL3, OsMADS1, OsMADS15, Ghd7, OsFD1, OsGI
Stress Resistance	OsRRD6, OsWRKY28, OsRACK1A, OsRACK1B, OsNPR1, OsWRKY67, OsMAPK6, OsGSK2, GF14c/14-3-3-c, AET1, SNAC1, OsIRE1
Quality and Yield	qGL3/GL3.1, GL6, GL7, GW5, OsBip1/BiP3, qGC-6/GBSSI, Gn1a, OsAAP6,



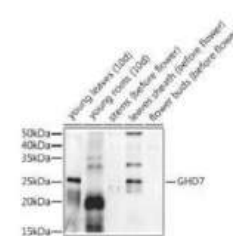
Oryza sativa



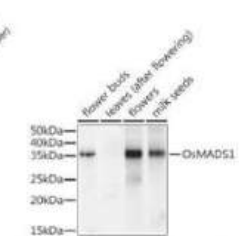
IPA1 Rabbit pAb (A17556)



DEP1 Rabbit pAb (A191R11)



GHD7 Rabbit pAb (A20327)



OsMADS1 Rabbit pAb (A20328)

Molecular Biology

Research Reagents

- ◆ Sample preparation
- ◆ PCR
- ◆ qPCR
- ◆ RT
- ◆ Cloning
- ◆ Endonuclease
- ◆ Molecular tool enzymes

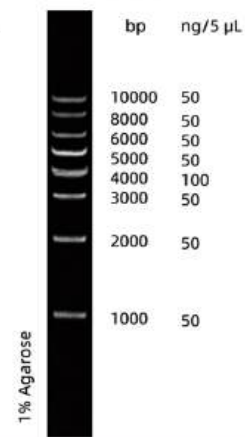
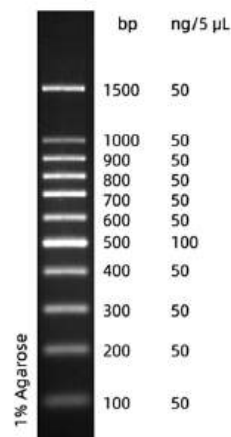
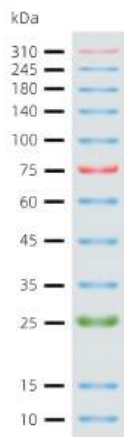
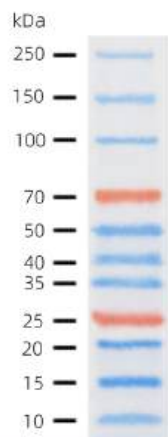
High-throughput Sequencing Reagents

- ◆ Sample preparation
- ◆ Library preparation
- ◆ Capture
- ◆ Adapter, primer
- ◆ Biological information analysis

Molecular Diagnostic Reagents

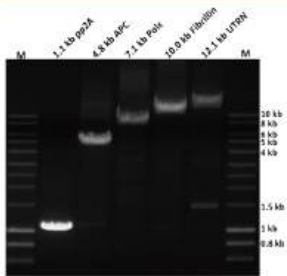
- ◆ Taqman qPCR
- ◆ qPCR lyophilized product
- ◆ qPCR direct amplification

Protein Ladder

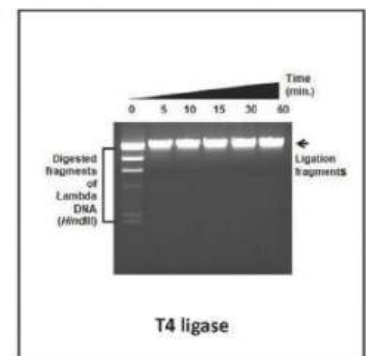
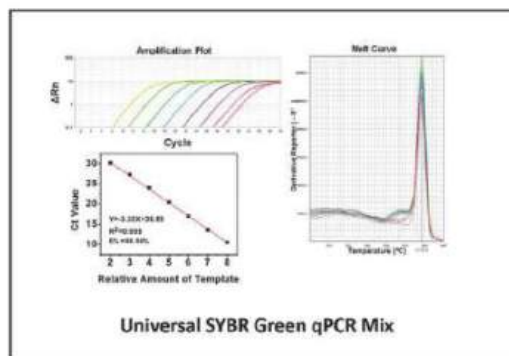
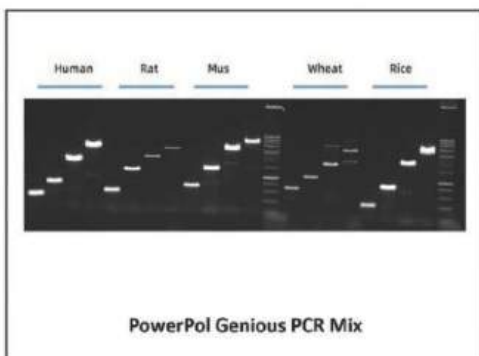


DNA Ladder

RK20400 ABScript II First Strand Synthesis Kit

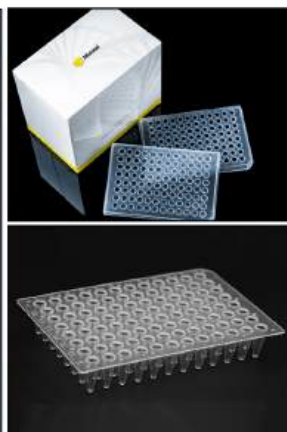


- Has two types of RT primers that can be flexibly selected based on downstream applications
- Reverse transcripts are suitable for gene cloning, qPCR, and RNA seq
- Synthesized cDNA product can be up to 12 kb with high yield
- Cited by Cell, Nature, and Sciences journal articles



Lab Supplies

High Quality Filter Tips		Normal Quality Filter Tips	
AI10LFHL	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Long Low Retention Filtered Pipette Tip 10µL ,96 Tips/Rack, 10 Racks/Box	AI10CLFH	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Long Low Retention Filtered Pipette Tip 10µL ,10 racks/box
AI20FHL	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Low Retention Filtered Pipette Tip 20µL ,96 Tips/Rack, 10 Racks/Case	AI20R2	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Long Low Retention Filtered Pipette Tip 20µL ,10 racks/box
AI200FHL	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Low Retention Filtered Pipette Tip 200µL ,96 Tips/Rack, 10 Racks/Case	AI200CFH	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Long Low Retention Filtered Pipette Tip 200µL ,10 racks/box
AI1000FHL	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Low Retention Filtered Pipette Tip 1000µL ,96 Tips/Rack, 10 Racks/Case	AI1000CFH	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Long Low Retention Filtered Pipette Tip 10µL ,10 racks/box
Non Filter Tips - Bag		Elisa Plates	
AI10CP	Non Filter Pipette Tip, Sterile DNase/RNase-free 10µL ,1000/bags,	AI04021	Detachable 8-Tube Strip in F Bottom, 96-Well Detachable Clear 8-Tube Strip in F Bottom, For ELISA, Medium Binding, White Frame, 10 Pcs/Bag, 20 Bags/Carton
AI200CP	Non Filter Pipette Tip, Sterile DNase/RNase-free 200µL ,1000/bags,	AI04022	Detachable 8-Tube Strip in F Bottom, 96-Well Detachable Clear 8-Tube Strip in F Bottom, For ELISA, High Binding, White Frame, 10 Pcs/Bag, 20 Bags/Carton
AI1000CP	Non Filter Pipette Tip, Sterile DNase/RNase-free 1000µL ,1000/bags,	AI04001C	Non Detachable Individually wrapped Clear ELISA plate with Lid 200 pcs/carton
Micro Centrifuge Tube		Cryo Vials	
AI03002	Centrifuge Tube, Conical-Bottom Centrifuge Tube, Non-pyrogenic, 1.5mL, 500 Tubes/Bag	AI03033	Cryo Vials 1.8 ml for -98C 1000/bag
AI03003	Centrifuge Tube, V-Bottom Centrifuge Tube, 2.0mL, Non-pyrogenic, 500 Tubes/Bag	AI03023	Cryo Vials 1.8 ml for -198C 1000/ bag
qPCR Plates and Sealer		Serological Pipettes	
AI02001T	96-Well Plate, 96-well qPCR Plates, 0.1 mL, Non-Skirted, Clear, Cut Corners A12 and H12, 10 Pieces/Box, (For Diagnostic users only)	AI05001	Sterile DNase/RNase-free Serological Pipettes, Yellow Ring Mark, Individual Package, 1 mL, 50pcs/Bag
AI02003	96-Well Plate, 96-well qPCR Plates, 0.1 mL, Semi-Skirted, White, Cut Corner H12, 10 Pieces/Box, Compatible with Bio-Rad CFX96 and Roche Instruments	AI05002	Sterile DNase/RNase-free Serological Pipettes, Green Ring Mark, Individual Package, 2 mL, 50pcs/Bag
AI02002	96 well qPCR plate, 100 ul, White Non skirted, Cut Corners A12 & H12, 10 plate/box, Compatible with Bio-Rad CFX96 and Roche Instruments	AI05003	Sterile DNase/RNase-free Serological Pipettes, Blue Ring Mark, Individual Package, 5 mL, 50pcs/Bag
AI02006	96-Well Plate, 96-well qPCR Plates, 0.2mL, Half-Skirted, Frosted clear, Cut Corner A12, 10 Pieces/Box, Compatible with ABI (Standard Module)	AI05004	Sterile DNase/RNase-free Serological Pipettes, Orange Ring Mark, Individual Package, 10 mL, 50pcs/Bag
AI02007	96-Well Plate, 96-well qPCR Plates, 0.1mL, Semi-Skirted, Frosted, Cut Corner A1, 10 Pieces/Box, Compatible with ABI Quant Studio, 7500, 7900, VII 7 Instruments	AI05005	Sterile DNase/RNase-free Serological Pipettes, Red Ring Mark, Individual Package, 25 mL, 25pcs/Bag
AI02021S	Sealing Film, Pressure-sensitive qPCR Plate Sealing Film, 50 Sheets/Box	AI05006	Sterile DNase/RNase-free Serological Pipettes, Purple Ring Mark, Individual Package, 50 mL, 20pcs/Bag



Lab Supplies

Filter Tips - Bag		PCR Tubes	
AI10CLFP	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Long Low Retention Filtered Pipette Tip 10 μ L ,1000 tips/bag	AI02082	8-Strip PCR Tubes, 8-Tube Strip with Non-Attached Optical Flat Caps, 0.1mL, 125 Strips/Box,
AI20CFP	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Low Retention Pipette Tip 20 μ L ,1000 tips/bag	AI02083	8-Strip PCR Tubes, 8-Tube Strip with Non-Attached Optical Flat Caps, White, 0.1mL, 125 Strips/Box,
AI200CFP	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Low Retention Pipette Tip 200 μ L ,1000 tips/bag	AI02084	8-Strip PCR Tubes, 8-Tube Strip with Non-Attached Optical Flat Caps, 0.2mL, 125 Strips/Box,
AI1000CFP	Low Retention Filtered Pipette Tip, Sterile DNase/RNase-free Low Retention Filtered Pipette Tip 1000 μ L ,1000 tips/bag	AI03001	Individual PCR Tube with Optical Flat Cap, 0.2mL, 1000 Tubes/Bag; enzyme free
Instruments		Normal PCR plate and Deepwell Plates	
AI30001	Mini Centrifuge-1Set Abclonal Mini Centrifuge with 4*8*0.2ml Rotor for 8 strip PCR tubes and 8-Place Rotor for 0.2/0.5/1.5/2ml centrifugal tubes	AI02009C	96-Well Plate, 96-well PCR Plates, 0.2mL, Non-Skirted, Clear, Cut Corner H1, 10 Pieces/Box, 5 Boxes/Case
AI30011	Vortex-A Mini Vortex Mixer, Circular Oscillation, Power Input: AC100 240V; DC12V.5W	AI02033	1.1mL 96 Round Type Deep Well Microplates, U-Shaped Well Bottom, 5/Box, 10 Box/Case
Micro Pipettes		Gloves	
AI20002P	0.1-2 μ L Single-channel Adjustable Volume Pipette	AI09011XS	Disposable Nitrile Gloves, Blue, 4.5g, Extra Small, 100 Pcs/Box
AI20010P	0.5-10 μ L Single-channel Adjustable Volume Pipette	AI09011S	Disposable Nitrile Gloves, Blue, 4.5g, Small, 100 Pcs/Box
AI20020P	2-20 μ L Single-channel Adjustable Volume Pipette	AI09001M	3.5g Disposable Nitrile Examination Gloves, Blue, Medium, 100 Pcs/Box
AI20200P	20-200 μ L Single-channel Adjustable Volume Pipette	AI09011M	Disposable Nitrile Gloves, Blue, 4.5g, Medium, 100 Pcs/Box
AI21000P	100-1000 μ L Single-channel Adjustable Volume Pipette	AI09001L	3.5g Disposable Nitrile Examination Gloves, Blue, Large, 100 Pcs/Box

CRO Custom Service

Custom Peptide Synthesis Service

We synthesize peptides up to 200 amino acids in length utilizing our proprietary ligation technology.

Starting from \$1.98/amino acid (aa), ABclonal can synthesize peptides with no minimum length requirement. We are proud to deliver peptide synthesis services with success rates higher than 95%.

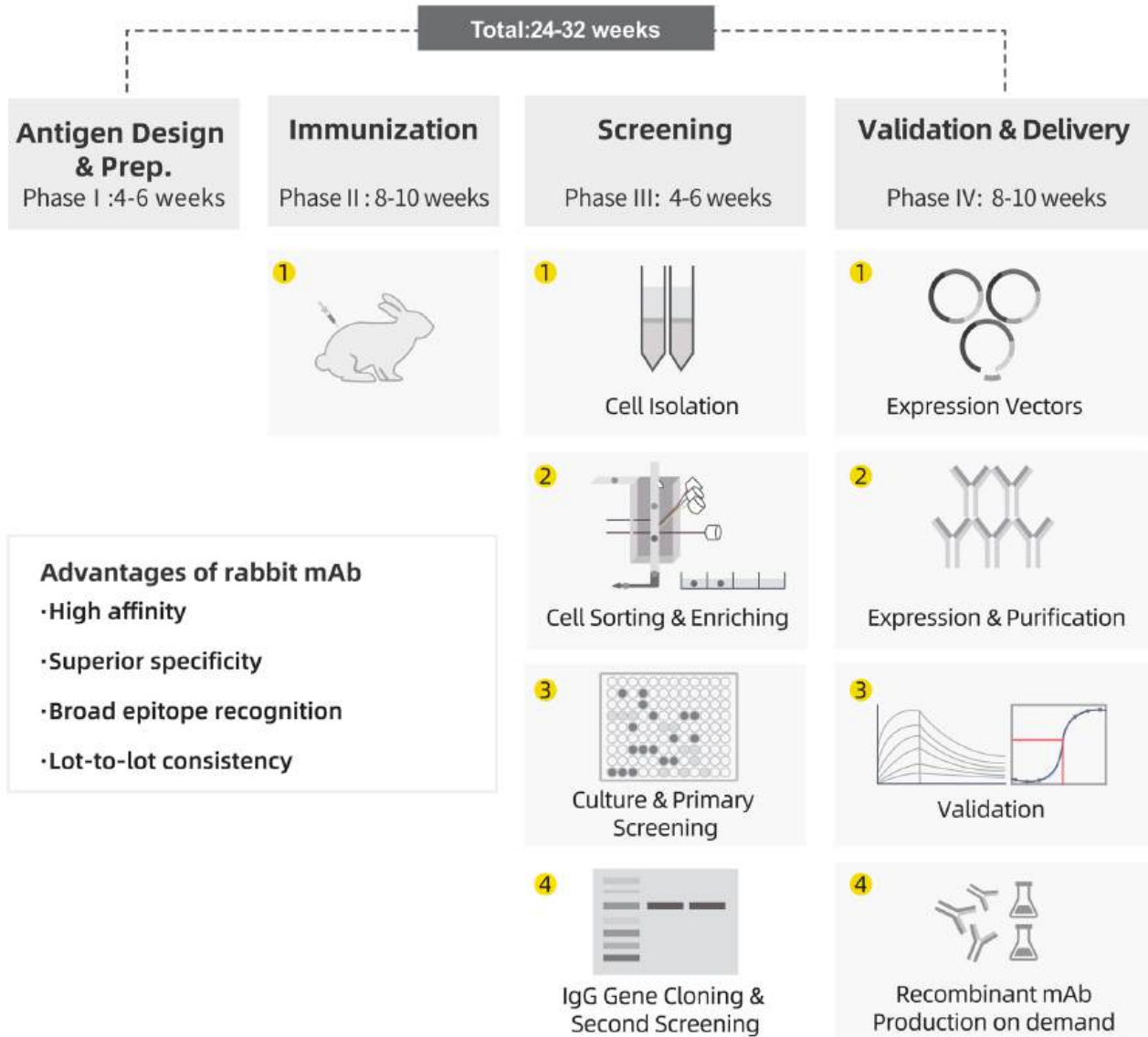
For peptide synthesis, liquid-phase peptide synthesis (LPPS) is used for shorter peptides to minimize side reactions, while solid-phase peptide synthesis (SPPS) is used for longer peptides to enable rapid separation between the growing peptide and the reaction mixtures. Microwave technology is used to increase the chemical coupling efficiency, improve peptide yields, and enhance success rate.

To ensure that the quality meets your research needs, all peptides include MS and HPLC validation reports will be performed by independent quality assurance parties.

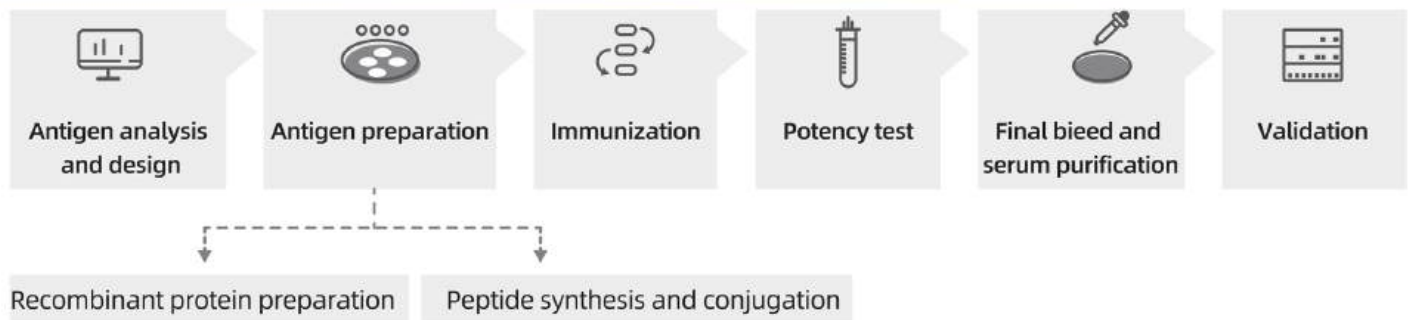
Peptide Synthesis Service Highlights

- **Lowest Price** – Starting from \$1.98/aa, our peptide synthesis services have no minimum length requirement. We will also price match quotes from other suppliers.
- **High Success Rate** – We're proud to deliver peptide services with success rates higher than 95%.
- **Quick Turnaround Time** – Short peptides are delivered within 2-3 weeks.
- **Peptide Desalting and Salt Conversation** – Trifluoroacetic acid (TFA) salts can be removed or converted into acetate salts.
- **Wide Range Quantity** – From mg to kg scales.
- **High Quality** – From crude to 98% purity.
- **Strict Quality Control** – All peptides come with MS and HPLC reports performed by independent quality assurance parties.

// Rabbit Monoclonal Antibody Development Process



// Polyclonal Antibody Development Process



Timeline:

- 10 weeks for customer provided antigens
- 13-15 weeks for ABclonal prepared antigens

ABCLONAL NGS LIBRARY PREPARATION SOLUTION

ABclonal has long been focusing on the product development of NGS library prep kits and related enzyme raw materials and has a comprehensive suite of library preparation

- Various DNA and RNA library prep kits and corresponding sequencing adapters optimized for Illumina and MGI sequencing platforms.
- Applied to resequencing, methylation sequencing, ChIP-seq, mRNA sequencing, whole transcriptome sequencing, small RNA sequencing, etc.
- DNA Damage Response (DDRE) technology and single-stranded DNA (ssDNA) ligation technology can significantly improve the success rate of library construction for FFPE, cf/ctDNA, and other clinical samples.

ABclonal NGS library preparation products are all modular in design and can be purchased flexibly according to your needs. ABclonal provides personalized services such as product consultation, technical training, and system optimization, to provide customers with professional solutions to the greatest extent.

DNA Library Preparation

- Enzymatic Fragmentation
- Ultrasonic Fragmentation

RNA Library Preparation

- RNA Library Prep Kit
- Poly(A) mRNA Purification Module
- rRNA Depletion Module
- First Strand & Second Strand Synthesis Module

Epigenetic-Related

- Sonication ChIP Kit
- CUT&Tag Assay Kit & Reagent

NGS Library Prep Raw Material Enzymes

- DNA Ligase
- T4 Polynucleotide Kinase
- RNase H
- NGS Polymerase
- RNA Ligase
- DNA Polymerase
- UDG

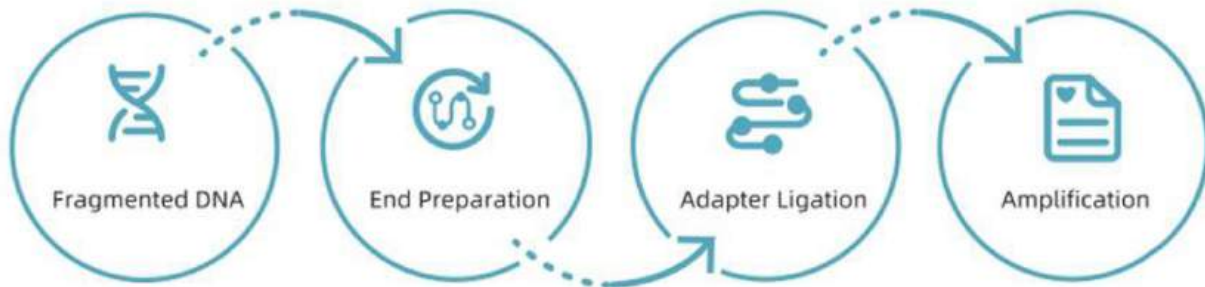
NGS Library Prep Related

- FFPE DNA QC Kit
- NGS Library Prep Raw Materials
- Magnetic beads for DNA purification and size selection

DNA Library Preparation

High-throughput DNA sequencing technology is widely used in prenatal diagnosis, cancer research, genetic disease testing, microbial identification, crop genetics and breeding, and other basic research. Library preparation is a vital step in DNA high-throughput sequencing experiments, and a high-quality DNA library is the basis for successful sequencing. ABclonal provides a comprehensive suite of DNA library preparation kits used on various samples such as FFPE DNA, cf/ct DNA, ChIP DNA, genomic DNA, and environmental microbial DNA.

Rapid Plus DNA Lib Prep Kit V2 Workflow



Product Features



Efficiently repair various types of DNA damage, especially for FFPE DNA, it can significantly increase the library size and quantity



Unique chemical formula and ligase significantly improve adapter ligation efficiency



Half the use of components can still finish the experiment, reduce the cost of library construction

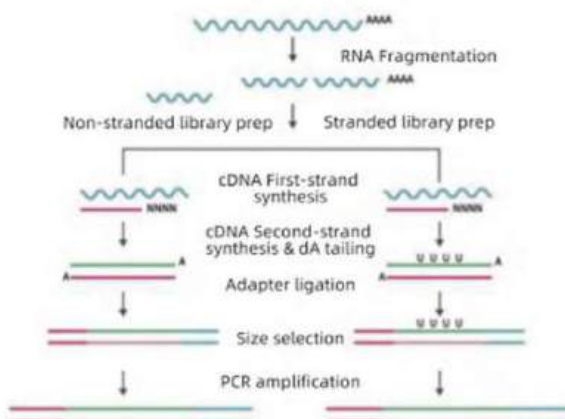


Compatible with different species genomes and can tolerate a wide range of DNA inputs

RNA Library Preparation

The transcriptome is a collection of all RNAs transcribed from a specific tissue or cell at a certain developmental stage or functional state, mainly including mRNA and non-coding RNA (non-coding RNA, ncRNA). Transcriptome sequencing (RNA-Seq) refers to the use of second-generation high-throughput sequencing technology for cDNA sequencing to comprehensively and quickly obtain almost all transcripts of a specific organ or tissue in a certain state. Transcriptome research is the basis and starting point for the study of gene function and structure. Understanding the transcriptome is necessary for interpreting the functional elements of the genome and revealing the molecular composition of cells and tissues. It also plays an important role in understanding the organism development and disease.

Fast RNA-seq Lib Prep Kit V2 Workflow

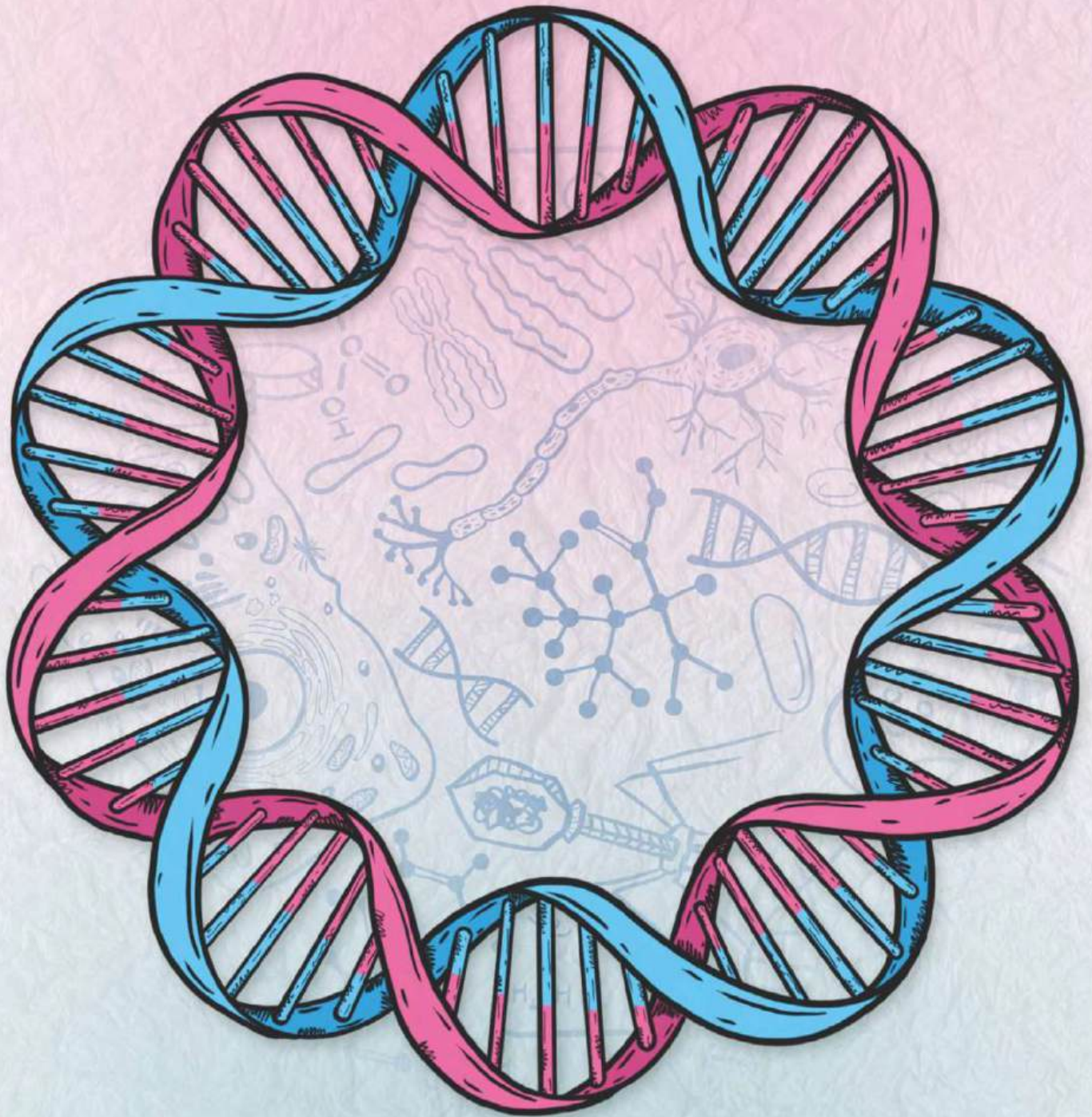


Product Features

- 1 Simplified operation process, shortening the database construction time to less than 3 hours
- 2 Compatible with dual sequencing platforms, full and truncated adapters, different mRNA purification methods, multi-species, multi-sample labeling
- 3 Excellent sequencing data quality
- 4 Compatible with both stranded and non-stranded library prep methods



VectorBuilder



Revolutionize Gene Delivery
from Research to Therapy

Common Mammalian Promoters

Ectoderm: Neural

Name	Tissue	Cell Type	Length (bp)	Name	Tissue	Cell Type	Length (bp)
Camk2a(long)	Forebrain	CA1 pyramidal cells of the hippocampus	8023	ProA1	Retina	Cone photoreceptor	2000
Camk2a(short)	Brain	Pyramidal neurons	1337	hRHO	Retina	Rod photoreceptor	839
Th	Brain	Dopaminergic neurons	3015	hBEST1	Retina	RPE	623
GFAP(long)	Brain	Astrocytes	2178	Hb9	Spinal cord	Motor neurons	4003
GFAP(short)	Brain	Astrocytes	681	NSE	Nervous system	Various neurons	1807
Iba1	Brain	Microglia	1889	Nes	Nervous system at embryonic stage	Neural stem/progenitor cells	1566
SYN1	Brain	Mature neurons	469	Cnp	Nervous systems, testis, and thymus	Oligodendrocytes and Schwann cells	3046
Prnp	Brain, hippocampus, cerebellum, retina	Various CNS neurons	8365	Tuba1a	Nervous systems at embryonic and early postnatal stages	Developing neurons but not astrocytes or oligodendrocytes	1121

Ectoderm: Surface

Name	Tissue	Cell Type	Length (bp)
K14	Epidermis	Keratinocytes	2268
BK5	Epidermis	Keratinocytes	5200
mTyr	Epidermis	Melanocytes and melanoma cells	560
Col2a1	Cartilage	Chondrocytes	1033
Runx2	Bone	Early osteoblasts	2514
CD11b	Bone marrow	Mature myeloid cell lines	1795
Col1a1	Bone, tooth, and tendon	Osteoblasts and fibroblasts	3632
OC	Bone and cartilage	Osteoblasts, osteocytes and hypertrophic chondrocytes	2141
MMTV	Mammary gland	Ductal cells of the salivary gland, mammary epithelial cells	1315
Wap	Mammary gland	Alveolar epithelial cells of mammary tissue	2444

Endoderm

Name	Tissue	Cell Type	Length (bp)
Nanog	Embryonic inner cell mass	Pluripotent stem cells	1334
NPHS2	Kidney	Podocytes	2599
Atp	Liver	Hepatocytes	2810
Alb	Liver	Mature hepatocytes	2336
TBG	Liver	Hepatocytes	460
SPB	Lung	AT II cells and Clara cells	635
HIP	Pancreas	β cells	1887
Ins2	Pancreas	Pancreatic β cells	705
Pdx1	Embryonic developing pancreas and adult pancreatic islets	Pancreatic progenitor cells and pancreatic β cells	2930
CD144	Lung, heart, ovary, spleen, and kidney glomeruli	Vascular endothelial cells	1599


Mesoderm

Name	Tissue	Cell Type	Length (bp)	Name	Tissue	Cell Type	Length (bp)
CD68(long)	Blood	Monocytes and macrophages	3079	Hcn4	Embryonic heart	Cardiomyocytes	2780
CD68(short)	Blood	Monocytes and macrophages	659	aP2	Fat	Adipocytes	3708
Tie1	Blood vessel	Endothelial cells	1142	Adipoq	Fat	Adipocytes	5411
Cd144	Blood vessels	Vascular endothelial cells	2510	Myog	Muscle	Myoblasts	1139
cTnT	Heart	Cardiomyocytes	413	ACTA1	Muscle	Myoblasts	2162
α MHC(long)	Heart	Cardiomyocytes	5464	SM22a	Adult smooth muscle	Vascular smooth muscle cells	2960
α MHC(short)	Heart	Cardiomyocytes	2833	EnSM22a	Adult smooth muscle	Vascular smooth muscle cells	594
MHCK7	Mouse skeletal and heart muscle	Differentiated postmitotic striated muscle cells	771				


Mammalian Ubiquitous Promoters

Name	Application Notes	Length (bp)
CMV	<ul style="list-style-type: none"> Strong promoter; May have variable strength in some cell types 	589
CMV + intron	<ul style="list-style-type: none"> Strong promoter; May have variable strength in some cell types; Presence of the beta-globin intron facilitates the nuclear export of mRNA by splicing and is predicted to enhance gene expression in eukaryotes 	1242
EF1A	Strong promoter	1179
EFS	Medium-strength promoter	232
CAG	Strong promoter	1733
CBh	Strong promoter	789
CBA	Strong promoter	850
SFFV	<ul style="list-style-type: none"> Strong promoter; Drives high levels of gene expression, particularly in cell types of the myeloid lineage 	500
MSCV	<ul style="list-style-type: none"> Medium-strength promoter; Drives gene expression in most murine or human ES cell lines and other mammalian cell lines 	515
SV40	Medium-strength promoter	344
mPGK	Medium-strength promoter	511
hPGK	Medium-strength promoter	505
UBC	Weak promoter	1178

Miscellaneous



Tetracycline-responsive element promoter
 - Regulated by a class of transcription factors (e.g. tTA, rTA and tTS) whose activities are dependent on tetracycline or its analogs (e.g. doxycycline).



Telomerase reverse transcriptase promoter - Tumor tissue specificity that targets immortalized and cancer cells

VectorBuilder's innovative online vector design platform enables researchers to create their custom vectors with just a few mouse clicks. We provide end-to-end solutions for all gene delivery needs spanning both research and therapy.

What Can You Do with VectorBuilder



Design vectors using our intuitive online design platform



Order and receive your vectors and viruses in as fast as 7 days



Manage your vectors and orders in your VectorBuilder account

**A One-Stop
Solution for All
Your Vector & Virus
Needs**



Send design requests for complex vector designs or service needs



Order other services (e.g. library construction, BAC recombineering, stable cell line generation, etc.)



Learn to become a vector expert with free and unlimited access to our rich educational content

Highlights



Diverse vector systems: >700 vector backbones for various applications in multiple model organisms



Comprehensive collections of vector components: >400,000 promoters, ORFs, epitope tags, markers, linkers, peptide signals, and whole-genome shRNA and gRNA databases



Bioinformatic tools: codon optimization, sequence alignment, shRNA, and CRISPR target design



Streamlined online shopping experience: fast checkout, easy order tracking, versatile payment options, and dedicated customer service



Highly affordable prices and rapid turnaround



Robust production and comprehensive QC for release



We provide GMP certified products

Virus Packaging

VectorBuilder has developed a range of proprietary technologies and reagents that significantly improve virus packaging in terms of titer, purity, viability, and consistency. Our packaging protocols are also optimized for the viral vector systems used in our cloning services. As a result, we have a growing community of highly satisfied customers who repeatedly come back to us for their virus packaging needs.

Viruses produced by VectorBuilder undergo a series of QC assays, including titration by qPCR or immunoassay,

sterility testing for bacteria and fungi, mycoplasma detection, transduction test for GOI expression, endotoxin assay (for ultra-purified virus), and SDS-PAGE analysis (for ultra-purified virus). Additional QC assays are available upon request (e.g. ddPCR, full/empty capsid ratio, TCID50, etc.).

*Detailed descriptions of our virus packaging services, including ordering information, are available on the VectorBuilder website under **Products & Services**.*



Virus packaging starts
as fast as 8 days



Lentivirus

Types of lentivirus offered

- VSV-G pseudotyped second and third-generation lentivirus
- Integrase-deficient lentivirus (IDLV)
- Coronavirus spike (S) protein pseudotyped lentivirus
- Bald lentivirus lacking viral envelope protein

Note: We also offer lentivirus pseudotyping services with other envelope proteins.

Highlights

- Permanent integration of vector DNA
- Very broad tropism targeting dividing and non-dividing cells
- High viral titer
- Customizable internal promoter
- Uniform transduction
- Effective gene delivery both in vitro and in vivo
- Minimal safety concern due to self-inactivating design

Adeno-Associated Virus (AAV)














Types of AAV offered

- Second generation AAVs with AAV2 ITRs
- ssAAV (single-stranded AAV) and scAAV (self-complementary AAV)
- Available serotypes for ssAAV and scAAV: 1, 2, 3, 4, 5, 6, 6.2, 7, 8, 9, rh10, DJ, DJ/8, PHP.eB, PHP.S, AAV2-retro, AAV2-QuadYF, and AAV2.7m8
- Chimeric baculovirus-AAV (serotypes 1, 2, 5, 6, 8, and 9)

Highlights

- Non-pathogenic in human
- Low risk of host genome disruption
- Multiple serotypes with broad tropism
- High viral titer
- Effective gene delivery both in vitro and in vivo

Tissue tropism of popular AAV serotypes

Tissue type	 Smooth muscle	 CNS	 PNS	 Brain	 Retina	 Inner ear	 Spleen	 Liver
Recommended AAV serotypes	AAV1, 2, 3, 5, 6, 7, 8, 9, rh10	AAV1, 2, 4, 5, 7, 8, 9, rh10, PHP.eB	AAV-PHP.S	AAV1, 2, 5, 7, 8, DJ/8	AAV1, 2, 4, 5, 7, 8, 9, rh10, 2.7m8, AAV2-QuadYF	AAV1, 2, 6.2, 8, 9, 2.7m8	AAV-DJ, DJ/8	AAV1, 2, 3, 6, 6.2, 7, 8, 9, rh10, DJ, DJ/8
Tissue type	 Pancreas	 Heart	 Kidney	 Lung	 Testes	 Adipose	 Spinal nerves	 Endothelial cells
Recommended AAV serotypes	AAV1, 2, 6, 8, 9, rh10	AAV1, 4, 5, 6, 8, 9, rh10, DJ	AAV2, 4, 8, 9, rh10, DJ, DJ/8	AAV1, 3, 4, 5, 6, 6.2, 9, rh10	AAV2, 9	AAV6, 8, 9	AAV2-retro	AAV2-QuadYF

Inducible Gene Expression Solutions

VectorBuilder offers a comprehensive collection of Tet-inducible gene expression system reagents to help you achieve nearly complete silencing of your GOI in the absence of tetracycline or its analogs (e.g. doxycycline), and rapid, robust expression in response to the addition of tetracycline or its analogs.

Highlights

- Utilizes the rtTA/TTS fusion cassette to achieve maximal

induction in the presence of tetracycline and minimal leaky expression in its absence

- Available in dual-vector and all-in-one formats
- Low-leak, tissue-specific vectors available with minimal leaky expression in non-target tissues in the absence of tetracycline
- Available in a variety of backbones, including regular plasmid, lentivirus, AAV, adenovirus, and piggyBac

Our Tet-Inducible System Offerings

Custom Tet vectors

Vector Type	Price (USD)	Turnaround
All-in-one Tet-On vectors	From \$209	7-13 days
Tet regulatory protein expression vectors	From \$159	
TRE driven GOI expression vectors	From \$209	
Low-leak Tet-On vectors	From \$209	

shRNA Gene Knockdown Solutions

VectorBuilder offers a comprehensive collection of shRNA reagents to provide you with the ideal tools for your gene knockdown experiments. We can provide both U6-based and miR-30 based shRNA systems to give you the flexibility to control shRNA expression in different ways based on your experimental needs. Additionally, our online vector design tool is integrated with shRNA databases, enabling you to easily select suitable shRNA targeting your GOI while designing your shRNA vectors.

Highlights

- Free and intuitive vector design tool with integrated shRNA databases for human, mouse, and rat models
- Versatile control of shRNA expression by either U6 or miR30
- Vast collection of backbones, including regular plasmid, lentivirus, AAV, adenovirus, and piggyBac
- Premade and custom-made shRNA library options
- Powerful technical support for shRNA selection, vector design, and troubleshooting

Our shRNA Offerings

Custom shRNA vectors

Vector Type	Price (USD)	Turnaround
U6-based shRNA vectors	From \$99	7-12 days
miR30-based shRNA vectors	From \$259	12-18 days
U6-based inducible shRNA vectors	From \$99	7-12 days
shRNA sensor vectors (for testing shRNA efficiency)	Please inquire	

Popular shRNA vectors

Vector Type	Price (USD)
Scramble shRNA vectors	From \$99
Anti-EGFP shRNA vectors	
Anti-mCherry shRNA vectors	
Anti-luciferase shRNA vectors	
Anti-lacZ shRNA vectors	

shRNA knockdown stable cell lines

VectorBuilder can custom-build shRNA knockdown stable cell lines for applications requiring long-term knockdown of your GOI. We identify the top three candidate shRNAs based on the knockdown score to ensure efficient knockdown of your GOI. We then use the shRNA with the

best knockdown efficiency to generate the stable cell line via lentivirus transduction. The knockdown level of the cell line is validated by RT-qPCR. Additionally, we perform a series of standard QC assays, such as sterility tests and mycoplasma detection, before releasing the final cell line products. (See page 26 for detailed information on our stable cell line generation services.)

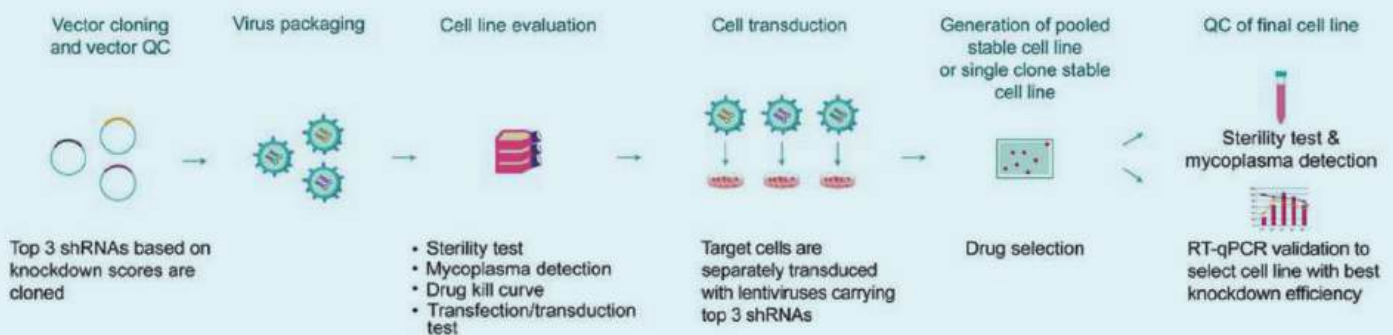


Figure 27. Workflow for our shRNA knockdown stable cell line generation process.

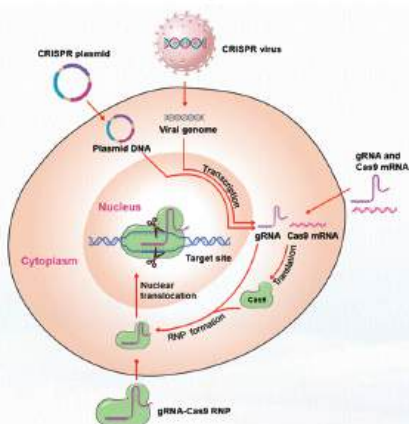


CRISPR Genome Editing Solutions





VectorBuilder offers a comprehensive collection of CRISPR products and services to provide you with the ideal tools for in vitro and in vivo genome editing experiments. Our CRISPR offerings range from off-the-shelf reagents that are ready for transfection or transduction to custom-made CRISPR vectors with high targeting efficiency and available in multiple delivery formats including plasmid, virus, and RNA.

CRISPR Highlight

- Highly intuitive online vector design platform with whole-genome gRNA database implemented for easy and quick CRISPR design
- CRISPR components available in a variety of delivery formats (i.e. CRISPR/Cas9 plasmid, CRISPR/Cas9 virus, Cas9 mRNA + gRNA, Cas9-gRNA RNP complex)
- Versatile CRISPR library construction options
- Robust quality, fast turnaround, and competitive pricing
- Powerful technical support for experimental design, data analysis, and troubleshooting

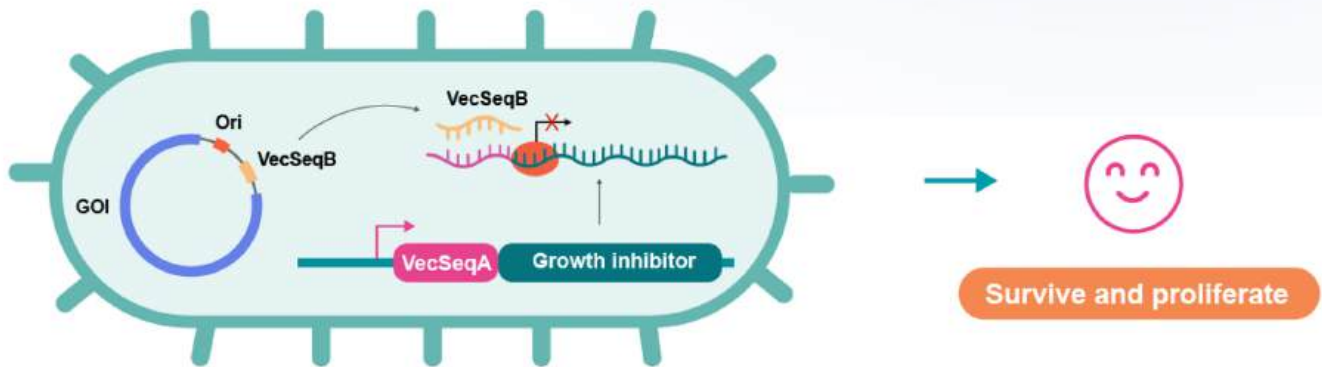


CRISPR Offerings

 <p>CRISPR Plasmids Products</p>	<ul style="list-style-type: none"> • Available in various viral and non-viral backbones including regular plasmid, lentivirus, AAV, adenovirus, and piggyBac. • All-in-one and dual vectors for gRNA-Cas9 expression. • Gene targeting donor vectors for HDR applications. • Vectors for CRISPRa and CRISPRi applications. • Premade Cas9 vectors, control gRNA vectors, and helper vectors for CRISPRa and CRISPRi. <p>Price - Starts from \$99 Turnaround - 2-5 weeks depending on complexity of vector design.</p>
 <p>CRISPR Virus Products</p>	<ul style="list-style-type: none"> • High-titer, ready-to-use lentivirus, AAV or adenovirus for all-in-one and dual CRISPR vectors. • Ideal for difficult-to-transfect cells. • Availability of various scales, suitable for in vitro or in vivo applications. • Premade, pooled, lentiviral whole-genome dual gRNA CRISPR libraries for human and mouse. • Custom pooled viral library construction available. <p>Price - Starts from \$399 Turnaround - 2-5 weeks depending on virus type and scale.</p>
 <p>gRNA & Cas9 mRNA Products</p>	<ul style="list-style-type: none"> • Transfection-ready and microinjection-ready Cas9 mRNA and gRNA against user-selected target sites. • Optimal gRNA designs with high targeting efficiency. • Cas9 mRNA available for both wildtype hCas9 nuclease and D10A Cas9 nickase. <p>Price - \$399 for both Cas9 mRNA and custom gRNA* Turnaround - 2-4 days.</p> <p>*Cloning of gRNA into in vitro transcription vector has an additional \$99 charge and 7-14 days turnaround</p>
 <p>Cas9 Protein Products</p>	<ul style="list-style-type: none"> • Purified protein available for both wildtype SpCas9 and D10A Cas9 nickase. • Custom protein production services available for other Cas9 proteins*. <p>Price - \$599 Turnaround - 5-7 days.</p> <p>*Different prices and turnarounds may apply for Cas9 proteins other than wildtype SpCas9 or Cas9 nickase</p>

miniVec™ Miniaturized Plasmid

VectorBuilder's proprietary miniVec™ plasmid offers a miniaturized backbone, providing remarkable efficacy, safety, and manufacturability for cell and gene therapies. Compared to traditional plasmids, miniVec™ plasmids have higher plasmid manufacturing and virus packaging yields, improved transgene expression, and an enhanced safety profile.



Highlights

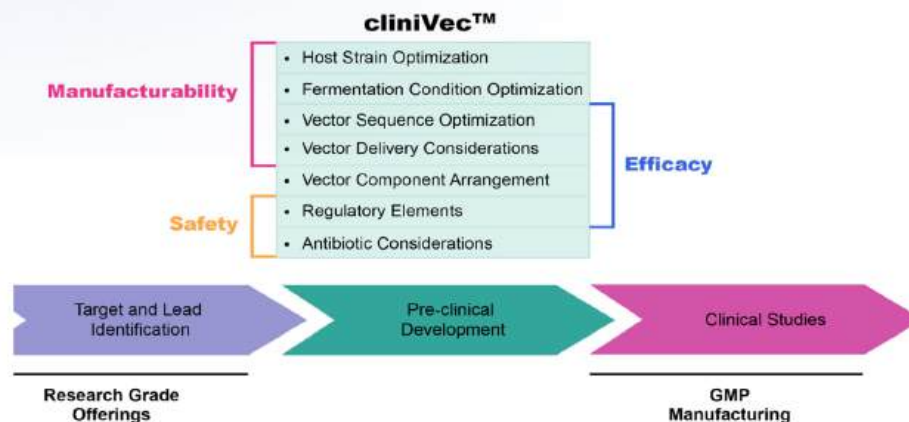
- Antibiotic-free and supplement-free fermentation
- Increased plasmid yields
- Enhanced transgene expression
- Efficient transposon delivery
- Safer source material for virus packaging

Expression Systems Supported

- Regular Plasmid
- Lentivirus
- AAV
- Sleeping Beauty
- PiggyBac

cliniVec™

VectorBuilder's cliniVec™ program provides researchers with comprehensive solutions, facilitating the smooth transition from research and validation to pre-clinical studies. The dedicated cliniVec™ design team at VectorBuilder focuses on optimizing vector designs specifically for pre-clinical and clinical studies.

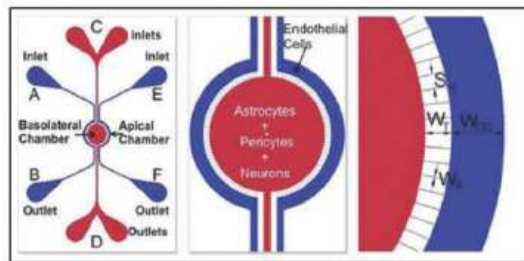
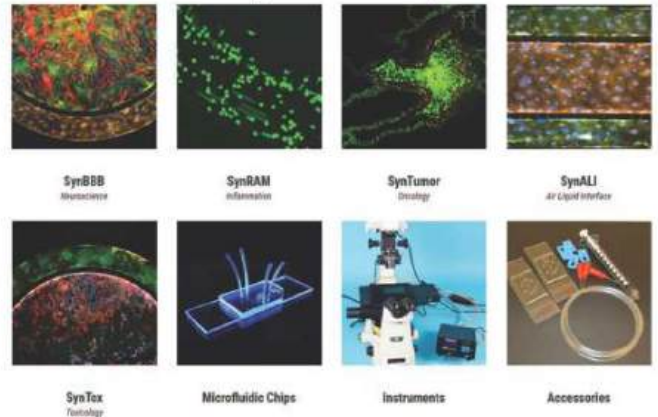


3D Tissue and Organ-on-Chip Models

SynVivo® is a cell-based microfluidic platform that provides a biologically realistic microenvironment for the analysis of cellular behavior, drug delivery and drug discovery. SynVivo 3D Tissue and organ-on chip models recreate complex in vivo microenvironments including scale, morphology, hemodynamics, and cellular interactions. Validated Models include SynBBB Blood Brain Barrier, SynTumor for Oncology applications, SynRAM for Inflammation, SynALI Air-Liquid Interface for Lung and SynTox for Toxicology applications.

- Side by side architecture
 - Develop complex co-culture morphology while maintaining real time visualization and quantitation.
- In vivo like vascular morphology with fully formed lumen
 - Deliver drugs in biologically realistic conditions
- Real time monitoring of cellular responses
 - Analyze Cell-Drug and Cell-Cell interactions in a controlled environment

Organ on a Chip

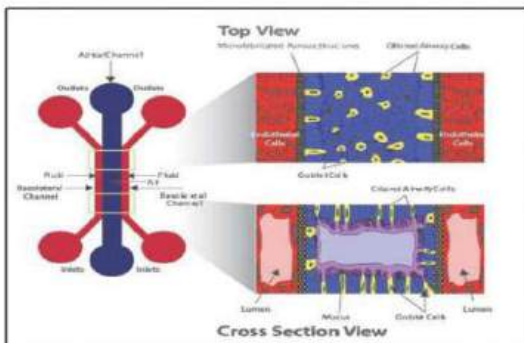
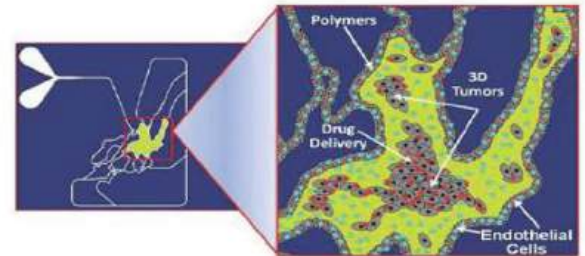


BBB Model Benefits

- Accurate in vivo hemodynamic shear stress
- Real-time visualization and quantitation of cellular and barrier functionality
- Significant reduction in cost and time
- Robust and easy to use protocols

syn Tumor benefits

- Side by side architecture enables quantitative real-time visualization
- Physiological leaky vasculature with engineered porous structures
- Morphologically realistic in vivo based architecture
- Physiologically realistic convective and diffusive transport
- Microfluidic platform with ultra-low consumable volumes..

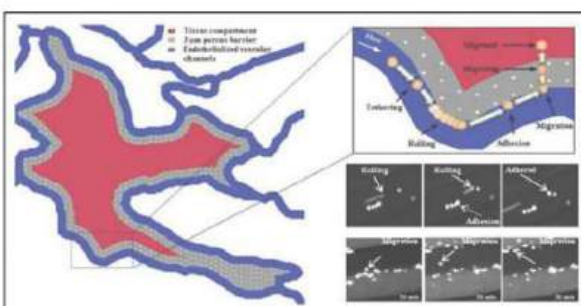
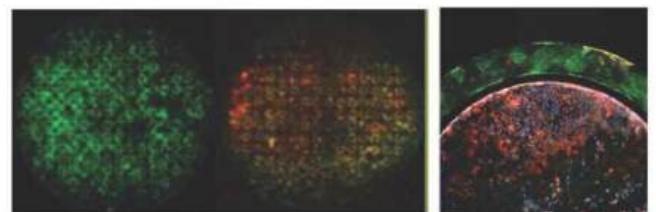


Synvivo lung benefits

- Unique Features include:
- Morphologically realistic airway structure and environment
 - Air Liquid Interface (ALI) across the epithelium and endothelium
 - In-Vivo hemodynamic shear stress
 - Real-time visualization of cellular and barrier functionality including mucus, ciliary beating, immune cell interactions, and therapeutic screening
 - Robust and easy to use protocols.

Synvivo SynTox 3D Toxicology Model benefits

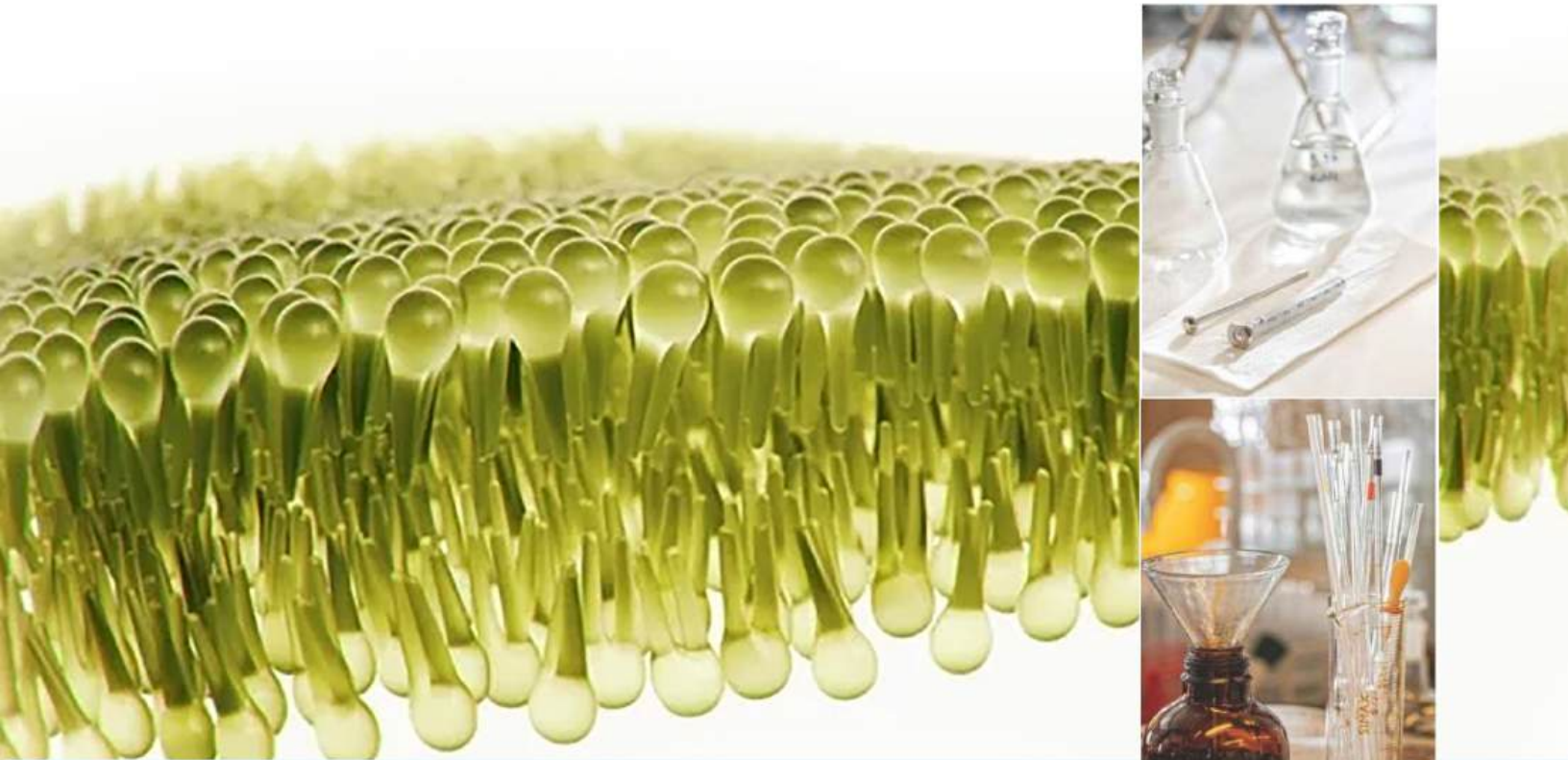
- Physiologically realistic morphological, fluidic and 3D cellular conditions
- Universal platform with architecture-specific of the desired organ
- Significant reduction in cost and time
- Robust and easy to use protocols
- Compatible with standard analytical instruments for both on-chip and off-chip assays including omic methodologies for systems biology and bioinformatic analysis.



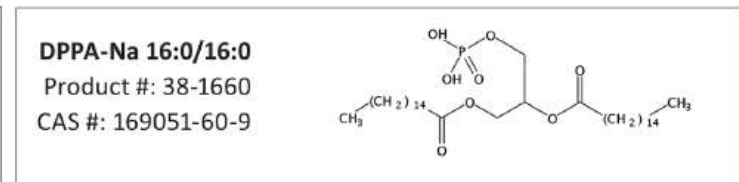
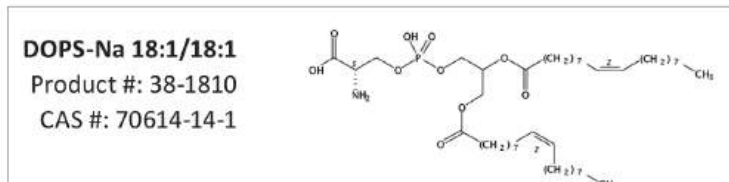
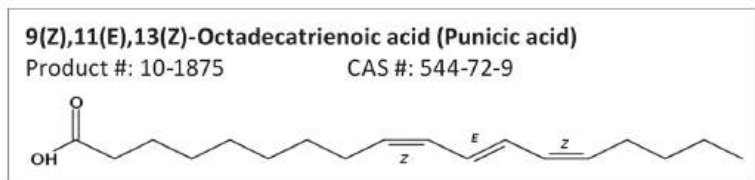
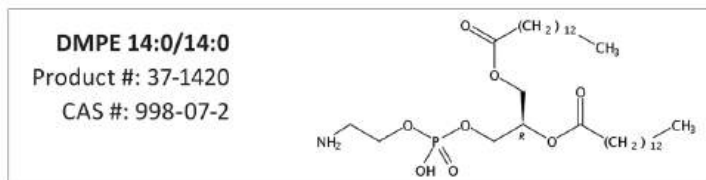
The SynRAM 3D inflammation model provides a realistic testing environment including:

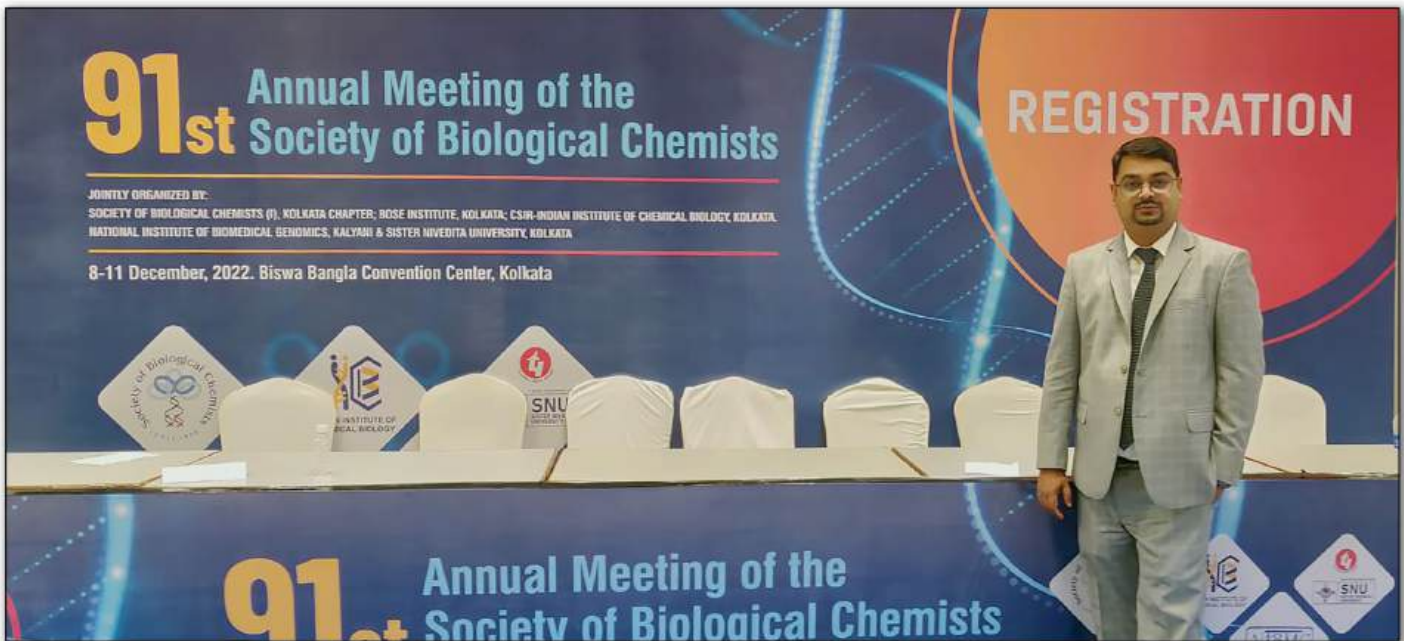
- Physiological shear stress within a microvascular environment
- In vivo like vascular morphology with fully enclosed lumen
- Co-culture capability for cell-cell interactions
- Quantitative real-time rolling, adhesion, and migration data from a single experiment

Larodan manufactures high purity lipids for use as reference standards, reagents and ingredients. Our comprehensive catalog of compounds includes most classes of lipids – from fatty acids and oxylipins to glycerides and phospholipids.



Fatty acids | Fatty acid methyl esters | Carnitines | Coenzyme A and CoA esters | Wax Esters | Fatty Alcohols | Saturated Hydrocarbons | **Oxylipins** | Octadecanoids | Eicosanoids | Prostaglandins | **Glycerides** | Monoglycerides | Diglycerides | Triglycerides | Single and mixed fatty acids | **Phospholipids** | Natural and Synthetic | PC | PG | PE | PS | PI | **Sphingolipids** | Sphingosines | Ceramides | Phosphosphingolipids | Spingomyelins | Glycosphingolipids | Cerebrosides | Sulfatides | Gangliosides | **Sterols** | Polyprenols and Dolichols | Polyprenyl Phosphate | MCPD | Glycines







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 **VectorBuilder**  **ABclonal** Technology[®]

 **SYNVIVO**

 **Larodan**
Research Grade Lipids

 **ROKIT**
HEALTHCARE