



DNA PRODUCTS

Large Selection of High Quality DNA,
DNA Extraction Kits, and Analysis

AnaPrep 12: Simplifying DNA Extraction



Automated Nucleic Acid
Preparation
System



- True Walk Away System
- Time Saving Efficiency
- Small Footprint
- No Cross Contamination
- Quick Barcode Protocol

Table of Contents



DNA Extraction Kits for Blood, Tissue (Fresh, Frozen, and FFPE), Cells, and Other Body Fluids



DNA Analysis for Plasmids, Methylation, and cDNA Synthesis



Genomic DNAs from Human (Normal, Tumor, and Diseased), Animal Species, and Plants



cDNAs from Human (Normal, Tumor, and Diseased), Animal Species and Plants



High Quality DNA Fast, Easy, and Economical!

BioChain offers an extensive list of Genomic **DNA Extraction Kits** to *maximize* efficiency and downstream performance. These individual kits are designed to purify genomic DNA from a variety of samples including **tissue, cells, blood, serum, plants, forensic samples**, etc. Let us help you find the right product to fit your research needs!

Available Kits:

- **Dr. P Kit** - used to isolate genomic DNA, RNA, and Protein simultaneously from the same sample
- **Genomic DNA Extraction Kit** - purify DNA from fresh or frozen tissue and cells
- **FFPE DNA Extraction Kit** - use to purify DNA from formalin fixed, paraffin-embedded tissue
- **Blood and Serum DNA Isolation Kit** - purify DNA from whole blood and blood cells or circulating DNA from serum, plasma, and biofluids
- **Serum DNA Isolation Kit** - use to purify DNA from serum, plasma, and biofluids
- **Saliva DNA Extraction Kit** - purify DNA from saliva samples
- **Urine DNA Extraction Kit** - use to purify DNA from urine samples
- **Stool DNA Extraction Kit** - purify DNA from stool samples



Dr. P Kit - (DNA RNA. Protein)

Key Benefits & Features

- Extract **high quality** samples using this product
- **Easier to use** than other methods!
- **Simultaneously** isolate genomic DNA, RNA, and Protein from a single biomaterial source
- Reduce error and inconsistency
- Ideal for small or large scale samples
- Free of contaminations by polysaccharides, proteoglycans, and RNase

Genomic DNA Extraction Kit

Key Benefits & Features

- **Convenient** tool for extracting **high quality** genomic DNA!
- Suitable for animal tissues and cells
- Ideal for small and large scaled samples
- No proteinase K
- No loss of nucleic acid

Blood and Serum DNA Isolation Kit

Key Benefits & Features

- **Fast, efficient,** and **convenient** alternative to traditional phenol or protease treatment.
- In less than 25 minutes pure DNA (>20 kb) can be obtained from blood or DNA fragments (circulating DNA) from serum
- No phenol-chloroform extraction, no protease, and no precipitation steps

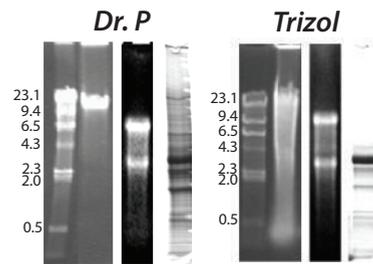


Fig. 1. The image of Dr. P product set from human spleen tissues.

A: DNA, RNA, and Protein Extracted by Dr. P Kit
 B: DNA, RNA, and Protein Extracted by Trizol
 Lane 1: Dr. P genomic DNA on agarose gel;
 Lane 2: Dr. P Total RNA on agarose gel;
 Lane 3: Dr. P protein on SDS-PAGE gel.

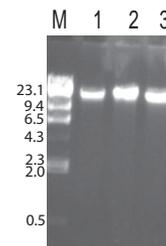


Fig. 2. Image of genomic DNA isolated by Biochain's Genomic DNA Extraction Kit
 Lane 1, 1 µg Bovine Liver Genomic DNA
 Lane 2, 1 µg Beagle Dog Liver Genomic DNA
 Lane 3, 1 µg Guinea Pig Liver Genomic DNA

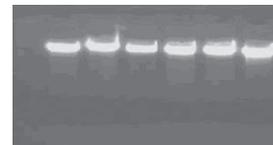


Fig. 3. This image shows the high quality of isolated DNA. Replicates of whole blood DNA was isolated by BioChain's Blood and Serum DNA Isolation Kit.

Catalog No.	Product	Unit
K2021010	Dr. P Kit	1 kit
K5016005	Genomic DNA Extraction Kit	1 kit
K5017100	Blood and Serum DNA Isolation Kit	1 kit

Serum DNA Isolation Kit

Key Benefits & Features

- **Time saving** - Total time <15 min
- Purification of genomic DNA fragments (circulating DNA) from serum, plasma, and etc.
- **Fast, efficient**, and **convenient** alternative to traditional phenol, and protease treatment.

Saliva, Urine, Stool, and Buccal Swab DNA Isolation Kit

Key Benefits & Features

- **Time saving** - Total time <30 min
- Can be used with freshly collected samples
- No phenol-chloroform, no precipitation, no protease
- Saliva and urine sample range 50 µl to 200 µl, stool sample range ~200 mg

Solution Based FFPE DNA Extraction Kit

Key Benefits & Features

- Demonstrated by users to be the **best commercial kit** in isolating small fragment DNA
- **High DNA yield** and **purity**
- Full compatibility with downstream applications such as qPCR
- Does not need special equipment
- No inhibition of downstream applications
- Use with Formalin-Fixed Parafin-Embedded tissue



Solution Based FFPE DNA Extraction Kit

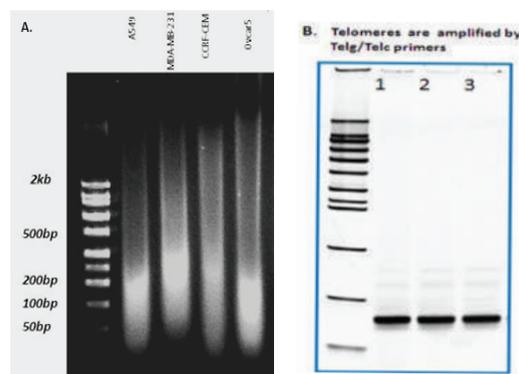


Fig. 4. DNA Extracted from FFPE Sections. A. Genomic DNA extracted from 4 human FFPE cell lines. B. Telomeres were amplified in triplicate from FFPE gDNA isolated from the A549 cell line. (Courtesy from Hui Wang et al. 2012)

Catalog No.	Product	Unit
K5018100	Serum DNA Isolation Kit	1 kit
K5011050	Saliva DNA Extraction Kit	1 kit
K5011150	Urine DNA Extraction Kit	1 kit
K5011250	Stool DNA Extraction Kit	1 kit
K5019100	FFPE DNA Extraction Kit - Solution Based	1 kit

Column Based FFPE DNA Extraction Kit

Key Benefits & Features

- **High DNA yield** and **purity**
- **Easy** and **efficient** DNA extraction
- **Competitively priced**
- Full **compatibility** with downstream applications like qPCR
- No hazardous chemicals
- Remove inhibitors and impurities
- Does not need special magnetic tools

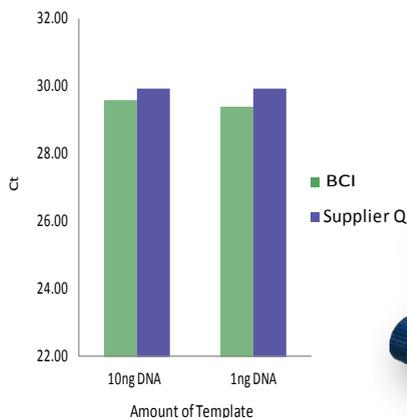


Fig. 5. DNA extracts from human pancreas FFPE sections were analyzed with qPCR using β -actin as a target. DNA was extracted using BioChain's FFPE DNA extraction kit (column based) and supplier Q's kit.

Bead Based FFPE DNA Extraction Kit

Key Benefits & Features

- **High DNA yield** and **purity**
- **Easy** and **efficient** DNA extraction
- **Competitively priced**
- **Magnetic bead technology** is used to release DNA from fixed tissue
- No inhibition of downstream applications
- Eliminates centrifugation
- No hazardous chemicals

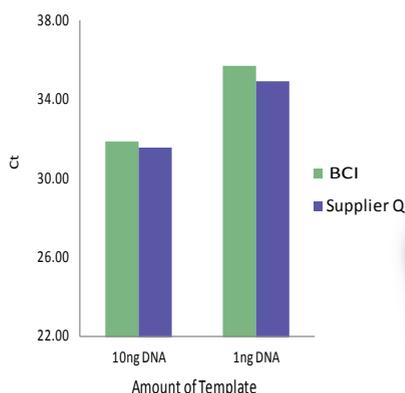


Fig. 6. DNA extracts from human pancreas FFPE sections were analyzed with qPCR using β -actin as a target. DNA was extracted using BioChain's FFPE DNA extraction kit (bead based) and supplier Q's kit.

Catalog No.	Product	Unit
K5011450	FFPE Tissue DNA Extraction Kit-Magnetic Beads	1 kit
K5011350	FFPE Tissue DNA Extraction Kit-Column	1 kit

Automated DNA Extraction Kit

AnaPrep 12: BioChain's **automated** nucleic acid extraction system. A variety of DNA Extraction kits can be used with the AnaPrep system. DNA extracted from human **FFPE tissue** and other biomaterial sources is **fast, efficient**, and better than manual kits.

Key Benefits & Features

- Saves **time** and **labor**
- **Easy to Use** and **Error-free** with simple steps, fool-proof design, and barcode reader
- Automated processing of 1 to 12 samples with pre-programmed protocols
- Consistent **high purity** nucleic acids using reliable reagents and methods
- Manufactured under GMP, ISO13458, and CE marking
- Minimizes contamination risks with unidirectional sample head and built-in UV lamp
- Purification from various sample sources and the products are suitable for downstream applications
- **Conserves space** with an all-in-one, compact instrument



Catalog No.	Product	Unit
Z1321001	AnaPrep 12 Instrument	1 EA
Z1321003	AnaPrep 24 Instrument	1 EA
Z1322009	AnaPrep FFPE DNA Extraction Kit	1 kit
Z1322006	AnaPrep Bacterial DNA Extraction Kit	1 kit
Z1322002	AnaPrep Blood DNA Extraction Kit 1200	1 kit
Z1322001	AnaPrep Blood DNA Extraction Kit 200	1 kit
Z1322005	AnaPrep Cultured Cell DNA Extraction Kit	1 kit
Z1322010	AnaPrep Forensic DNA Extraction Kit	1 kit
Z1322007	AnaPrep HPV DNA Extraction Kit	1 kit
Z1322008	AnaPrep TB DNA Extraction Kit	1 kit
Z1322004	AnaPrep Tissue DNA Extraction Kit	1 kit
Z1322003	AnaPrep Viral Nucleic Acid Extraction Kit	1 kit

DNA Analysis and Synthesis

BioChain offers popular kits for **analyzing** and working with DNA. Our kits and reagents have enabled our customers to easily analyze genomic DNA, cDNA, and plasmid DNA. They are designed for the **quick detection** of **target plasmids** and **methyalted** DNA, and for the **synthesis** of first strand cDNA.

Available Kits:

- **Optimax First Strand cDNA Synthesis Kit** – contains all necessary reagents for full-length first strand cDNA synthesis
- **DNA Methylation Detection Kit** – an efficient and convenient alternative to traditional bisulfate conversions
- **Express Cloning Checker Kits (I, II, III)** – screening bacterial colonies for plasmid DNA and inserts without extracting plasmid DNA

Optimax First Strand cDNA Synthesis Kit

Key Benefits & Features

- Ready for PCR Amplification
- Full-length first strand **cDNA synthesis**
- Templates for second strand cDNA synthesis and **construction** of cDNA libraries
- Complete system with positive control primers and BioChain's premium quality human placenta total RNA

DNA Methylation Detection Kit

Key Benefits & Features

- **Fast** and **efficient** bisulfate conversion
- > 99 % conversion of cytosine to uracil and > 99 % CpG protection
- Positive control included
- Sensitivity range 500 pg - 2 ug

Kb 1 2

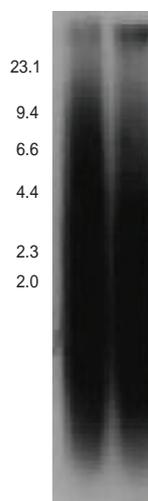


Fig. 7. Agarose gel analysis of first-strand cDNA synthesis. Fluorescein labeled first-strand cDNA made from human liver total RNA was electrophoresed on an agarose gel and transferred to a nylon membrane. The membrane was hybridized by AP-anti fluorescein antibody and visualized through CDP-Star detection. The membrane was exposed to x-ray film for 3 seconds.

Lane 1: cDNA synthesized with BioChain's cDNA synthesis Kit
Lane 2: cDNA synthesized with competitor's cDNA synthesis Kit

Catalog No.	Product	Unit
K4201100	Optimax First Strand cDNA Synthesis Kit	1 kit
K5082100	DNA Methylation Detection Kit	1 kit: 50 rxn

Express Cloning Checker Kits (I, II, III)

Key Benefits & Features

- Directly analyze **plasmid recombinants** in bacteria without extracting plasmid DNA
- **Fast** and **efficient**
- Easily handle up to hundreds of colonies at the same time
- Suitable for any bacterial form - plate colonies, liquid culture or glycerol stock
- **Replace time-consuming** DNA miniprep and restriction enzyme digestions or colony PCR

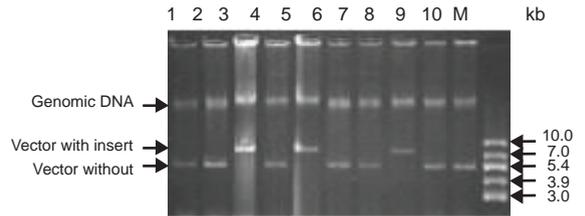


Fig. 9. Large scale screening of recombinant colonies. Partial colonies were picked directly from over-night cultured transformation plates and treated with red and yellow solutions before electrophoresis. Three recombinants with 2.5 kb inserts (lanes 3, 5, and 8) are identified. Lane M is the supercoiled DNA marker supplied in the kit.

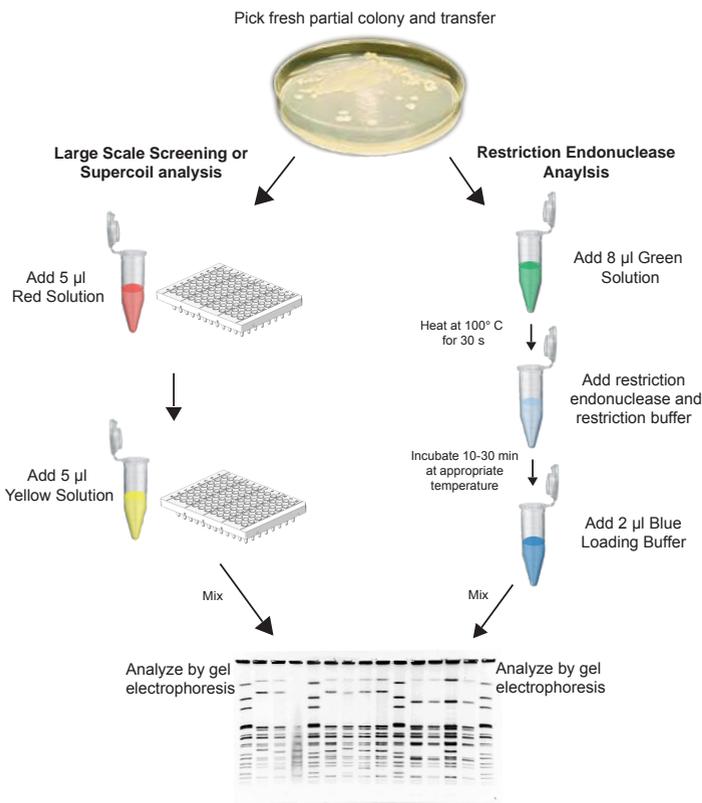


Fig. 8. Flowchart of Express Cloning Checker

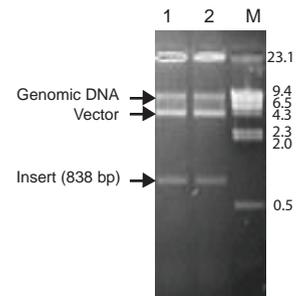


Fig. 10. Enzyme digestion analysis of recombinant colonies. Recombinant colonies were picked up directly from overnight cultured transformation plates in green solution and followed by restriction enzyme digestion (EcoR I, lanes 1 and 2) for 30 minutes at 37 °C. Lane M is Hind III/lambda DNA marker. An 838 bp insert was detected.

Optimized Kits

- Kit I for supercoil analysis
- Kit II for restriction enzyme analysis
- Kit III contain components for supercoil and restriction enzyme analysis

Catalog No.	Product	Unit
K5011200	Express Cloning Checker Kit I	1 kit: 200 rxn
K5012100	Express Cloning Checker Kit II	1 kit: 100 rxn
K5013200	Express Cloning Checker Kit III	1 kit: 200 rxn

Genomic DNA

BioChain's tissue genomic DNAs are isolated from over **200 different** human and fetal normal tissues, human diseased and tumor tissues, as well as many animals and plant tissues. Our genomic DNAs are **ready to use** for **SNP analysis, DNA methylation** study, **Southern Blotting**, and **PCR**. Obtaining genomic DNAs from BioChain will allow the immediate identification of genes of interest without the need to acquire tissues and isolate DNA.

Key Benefits & Features

- Genomic DNA isolated from a wide variety of **hard-to-obtain** tissues
- Male and female control genomic DNAs from various animal species
- Decontamination of RNA, polysaccharides, and proteoglycans
- A260/280 is between 1.8 and 2.0, A260/230 is over 2.0
- **High efficiency** in PCR
- Documentation of tissue history is available

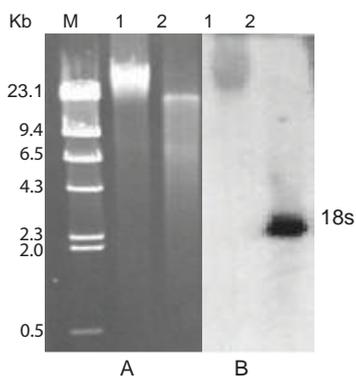
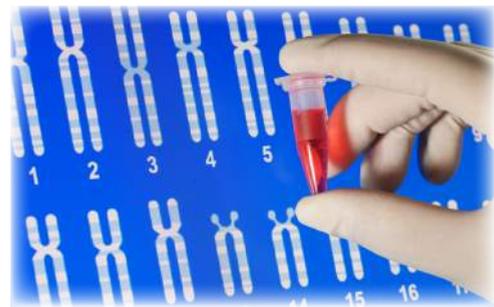


Fig. 11. Image of human placenta genomic DNA
 A: Genomic DNA on 0.7% agarose gel
 B: Southern Blot analysis by 18s
 Lane 1: 1 µg placenta Genomic DNA
 Lane 2: 1 µg placenta Genomic DNA after Bam HI digestion

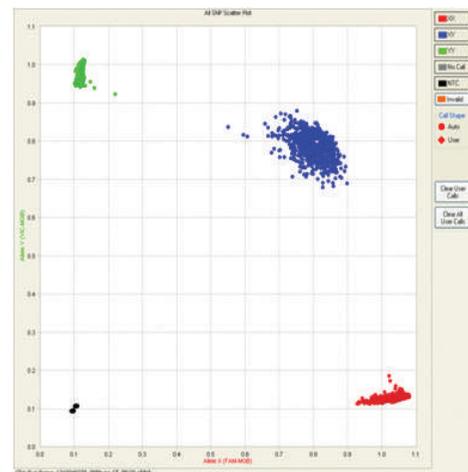


Fig. 12. Image of SNP test with lymphocyte cell line DNA controls
 Green: Cluster with lymphocyte YY DNA
 Blue: Cluster with lymphocyte XY DNA
 Red: Cluster with lymphocyte XX DNA

Control Genomic DNA

Key Features

- DNA isolated from human males and females
- Several human cell line genomic DNA also available as control

FFPE Genomic DNA

Key Features

- FFPE vs. Frozen Matched Pair
- FFPE Normal vs FFPE Tumor
- Control for NGS and qPCR



Tissue Specific Genomic DNA

Key Features

- Each of the organ/tissue specific DNA is from a single donor
- Multiple organs/tissue are available from normal donors

Available Stock Samples

- Human Adult Normal
- Human Fetal Normal
- Human Tumors
- Human Diabetes
- Human Heart Diseases: arrhythmia, arteriosclerosis, congenital, congestive, coronary hypertension
- Human Neurological Diseases: Alzheimer's disease, Parkinson's disease, dementia, depression, multiple sclerosis, progressive nuclear palsy
- Human Lung Diseases: asthma, bronchitis, emphysema, pneumonia, embolism
- Human liver cirrhosis
- Human Lupus
- Plant Normal

Did you know?

We offer custom DNA extractions to your exact specifications. BioChain is a manufacturer of DNA extraction kits and genomic DNA that can be extracted from our stock of hundreds of tissues.

Selection of Genomic DNA

Catalog No.	Product	Unit
D1234999-G01	Control Genomic DNA - Human Male	100 µg
D1234999-G02	Control Genomic DNA - Human Female	100 µg
D1255801	Genomic DNA - Human Tumor Cell Line: A431	100 µg
D1255811	Genomic DNA - Human Tumor Cell Line: HeLa	100 µg
D1255815	Genomic DNA - Human Tumor Cell Line: Jurkat	100 µg
D1255820	Genomic DNA - Human Tumor Cell Line: K-562	100 µg
D1255830	Genomic DNA - Human Tumor Cell Line: MCF-7	100 µg
D1255840	Genomic DNA - Human Tumor Cell Line: Raji	100 µg
D1255872	Genomic DNA - Human Lymphocyte Cell Line: XX	100 µg
D1255871	Genomic DNA - Human Lymphocyte Cell Line: XY	100 µg
D1255874	Genomic DNA - Human Lymphocyte Cell Line: YY	100 µg
D1255873	Genomic DNA - Human Lymphocyte Cell Line: aCGH	100 µg
D2234090	FFPE Genomic DNA - Human Adult Normal Tissue: Colon	2 µg
D2234149	FFPE Genomic DNA - Human Adult Normal Tissue: Liver	2 µg
D2234152	FFPE Genomic DNA - Human Adult Normal Tissue: Lung	2 µg
D2234188	FFPE Genomic DNA - Human Adult Normal Tissue: Pancreas	2 µg
D2235086	FFPE Genomic DNA - Human Tumor Tissue: Breast	2 µg
D2235090	FFPE Genomic DNA - Human Tumor Tissue: Colon	2 µg
D2235152	FFPE Genomic DNA - Human Tumor Tissue: Lung	2 µg
D2235188	FFPE Genomic DNA - Human Tumor Tissue: Pancreas	2 µg
D2235248	FFPE Genomic DNA - Human Tumor Tissue: Stomach	2 µg
D2235274	FFPE Genomic DNA - Human Tumor Tissue: Uterus	2 µg
D8234149FP	Human Adult Normal Tissue: Liver	2x2 µg
D8235086FP	Human Tumor Tissue: Breast	2x2 µg
D8235090FP	Human Tumor Tissue: Colon	2x2 µg
D8235152FP	Human Tumor Tissue: Lung	2x2 µg
D8235248FP	Human Tumor Tissue: Stomach	2x2 µg

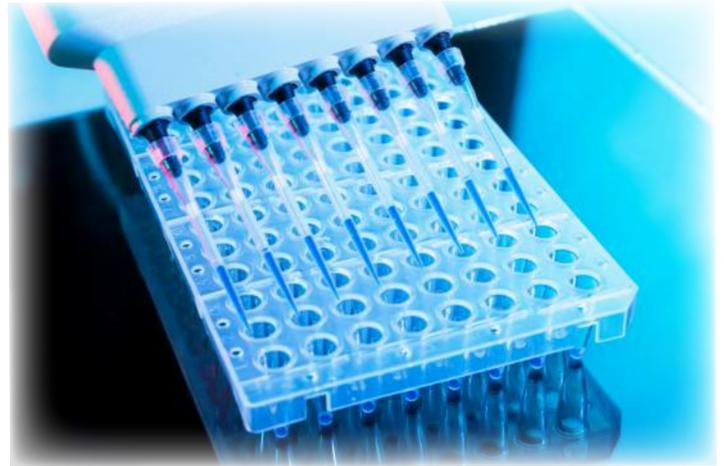
Please inquire about our other products and services.

96 Well Genomic DNA Plate

For analysis of DNA from blood, cells and tissues in 96-well format

Key Benefits & Features

- Processing of 96 samples in less than 60 minutes
- High-Quality DNA that is ready-to-use for Real Time PCR.
- Streamlined protocols for 96-well plates
- Highly standardized workflow
- **Highly reproducible** DNA yields



BioChain's 96 Well Genomic DNA Plate is designed for high-throughput analysis of total DNA (including genomic, mitochondrial and viral DNA) from whole blood and a variety of normal or diseased tissues or cells. It is intended for human normal and tumor gene profiling studies in automated gene analysis systems. The plate is prepared using genomic DNAs extracted from human normal and tumor tissue samples from as many as 96 individual donors. The extraction and purification are performed using BioChain's proprietary method that yields high molecular weight material verified by agarose gel electrophoresis.

Catalog No.	Product	Unit
D8234148-1	96 Well Human Adult Normal Genomic DNA Plate	1 plate
D8235086-1	96 Well Breast Tumor Genomic DNA Plate	1 plate
D8235090-1	96 Well Colon Tumor Genomic DNA Plate	1 plate
D8235152-1	96 Well Lung Tumor Genomic DNA Plate	1 plate
D8235248-1	96 Well Stomach Tumor Genomic DNA Plate	1 plate

BioChain's Selection of cDNA

Biochain's PCR Ready First Strand cDNA is made from our high-quality total RNA. Each cDNA is a pre-made, tissue-specific "pool" of first strand cDNA from which full-length genes can be amplified by using sets of gene-specific primers.

Key Features

- **High quality** RNAs are used for cDNA synthesis
- Ready to use for PCR
- Efficient reverse transcription is guaranteed
- Control Primers are included
- Clinical information available for all samples

Applications

- **Immediate PCR Amplification** of known genes
- Verification of genetic mutation
- Comparison of gene expression in different tissues
- Analysis of mRNA alternative splicing
- Gene cloning and target sequencing



BioChain's Selection of cDNA

Available Stock cDNAs Samples

- Human adult normal
- Human fetal normal
- Human tumors
- Human diabetes
- Human heart diseases
arrhythmia, arteriosclerosis, congenital, congestive, coronary hypertension
- Human neurological diseases
Alzheimer's disease, dementia, depression, multiple sclerosis, Parkinson's disease, progressive nuclear palsy
- Human lung diseases
asthma, bronchitis, emphysema, pneumonia, embolism
- Human liver cirrhosis
- Human lupus
- Animal Species: dog, Cynomolgus monkey, Rhesus monkey, mouse, and rat
- Plant

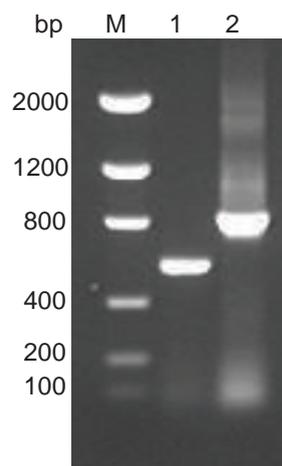


Fig. 13. Image of cDNA. Using BioChain's placenta cDNA as a template, both human β -actin and clathrin genes are successfully amplified. Lane 1: 568 bp fragment from 5' end of clathrin gene; Lane 2: 838 bp fragment of β -actin gene.



Custom Service

We offer custom synthesis of cDNA from various types of samples, such as blood, serum, FFPE tissue, and frozen tissue. Please contact us at info@biochain.com

BioChain has a large variety of tissues from which genomic DNA can be extracted.
Please inquire about custom made genomic DNA to fit your needs.

Tissue Name	Code	Tissue Name	Code	Tissue Name	Code	Tissue Name	Code
Abdominal	001	Brain, Substantia nigra	076	Lung, left upper lobe	156	Small Intestine,	
Adipose, Brown (fetal)	002	Brain, Grey Matter	077	Lung, right lower lobe	157	Jejunum Distal	231
Adipose, Subcutaneous or organ(White)	003	Brain, Temporal lobe	078	Lung, right middle lobe	158	Small Intestine,	
Adrenal	004	Brain, Thalamus	079	Lung, right upper lobe	159	Jejunum Proximal	232
Adrenal, cortex	005	Brain, Tonsilla cerebelli	080	Lung, Trachea	160	Sperm	233
Appendix	006	Brain, Tuberculum cinereum	081	Lymph node	161	Spinal Cord	234
Adrenal, medulla	007	Brain, Vermis cerebelli	082	Maxilla	163	Spinal Cord,	
Buccal Mucosa	008	Brain: Cerebral Peduncle	083	Mesenchyme	164	Cervical Anterior	235
Bladder	010	Brain: Colliculus Inferior	084	Maxillary (Submaxillary) gland	165	Spinal Cord,	
Blood vessel	011	Brain: Pallidus	085	Mediastinum	166	Cervical Dorsal	236
Blood vessel, Aorta	012	Breast, Mammary Gland	086	Mesenterium	167	Spinal Cord,	
Blood vessel, Artery	013	Brain, White Matter	087	Muscle	168	Chest Segment, Anterior	237
Blood vessel, Brain Artery	014	Carotid Body	088	Muscle, Diaphragm	169	Spinal Cord,	
Blood vessel, Brain Vein	015	Cecum	089	Muscle, Heart Ventricular	170	Chest Segment, Dorsal	238
Blood Vessel, Caval Vein	016	Colon	090	Muscle, Skeletal Muscle	171	Spinal Cord, Lumbus	
Blood vessel, Coronary Artery	017	Colon, ascending	091	Muscle, Smooth Muscle	172	Segment, Anterior	239
Blood vessel, Coronary Vein	018	Colon, descending	092	Nasal epithelium	176	Spinal Cord, Lumbus	
Blood vessel, Hemangioma	019	Colon, distal	093	Nerve Peripheral	177	Segment, Dorsal	240
Blood vessel, Vein	020	Colon, proximal	094	Nose	178	Spinal Cord, Sacral	
Bone	023	Colon, sigmoid	095	Nucleus Pulposus	179	Segment, Anterior	241
Bone Marrow	024	Colon, transverse	096	Parasympathetic Nerve	180	Spinal Cord, Sacral	
Bone, Cartilage	025	Pelvic ganglion	097	Nerve, sciatic	181	Segment, Dorsal	242
Bone, Elastic cartilage	026	Trigeminal ganglion	098	Oschea	182	Spine	243
Bone, Epiphysial plate	027	Dorsal root ganglia	099	Ovary	183	Spleen	246
Bone, Fibrocartilage	028	Ductus deferens	100	Pancreatic duct	186	Stomach	248
Bone, Hyaline cartilage	029	Duodenum	101	Palate	187	Stomach, Atrium	249
Bone, Rib	030	Ear	104	Pancreas	188	Stomach, Cardia	250
Bone, Skull	031	Epididymus	105	Parathyroid	189	Stomach, Corpus	251
Bone, Sternum	032	Esophagus	106	Parotid	190	Stomach, Fundus	252
Brain	035	External genitals	107	Pars cervicalis	192	Stomach, Pylorus	253
Brain, Amygdala	036	Eye	108	Pelvic Cavity	193	Sublingual gland	254
Brain, Basal Ganglia	037	Eye, Cornea	109	Penis	194	Sweat Gland	256
Brain, Cerebellar peduncles	038	Eye, Retina	110	Penis, Collum glandis	195	Synovial fluid	257
Brain, Cerebellum	039	Eye, Sclera	111	Penis, Corpus	196	synovium	258
Brain, Cerebellum, Left	040	Fallopian tube	115	Cavernosum	197	Sympathetic splenic ganglia	259
Brain, Cerebellum, Right	041	Gallbladder: Biliary duct	117	Penis, Foreskin	198	Testis	260
Brain, Cerebral Cortex	042	Gallbladder	118	Penis, Glans penis	199	Theca tendinis	261
Brain, Cerebral Meninges	043	Greater Omentum	119	Pharynx	200	Thorax	262
Brain, Choroid plexus	044	Heart, Auricular	120	Placenta	201	Throat	263
Brain, Corpus Callosum	045	Heart	122	Prostate	202	Thymus	264
Brain, Corpus Callosum area	046	Heart, Aorta valve	123	Prostate hyperplasia	202	Thyroid	265
Brain, Corpus mammillare	047	Heart, Arcus Aortae	124	Peyer's patch	203	Tongue	267
Brain, lateral ventricle wall	048	Heart, Atrium	125	Rectum	206	Tonsil	268
Brain, Diencephalon	049	Heart, Atrium, left	126	Renal Pelvis	207	Urethra	271
Brain, Dura mater	050	Heart, Atrium, right	127	Salivary Gland	212	Umbilicus	272
Brain, Frontal lobe	051	Heart, Auricula, left	128	Seminal vesicle	214	Ureter	273
Brain, Hippocampus	052	Heart, Auricula, right	129	Serous fluid	215	Uterus	274
Brain, Hippocampus area	053	Heart, Interventricular septum	130	Serum	216	Uterus, Cervix	275
Brain, Hypothalamus	054	Heart, Mitral valve	131	Skin	218	Uterus, Corpus	276
Brain, Insula	055	Heart, Papilla muscle	132	Skin, Back	219	Uterus, Endometrium	277
Brain, Medulla oblongata	057	Heart, Pericardium	133	Skin, Chest/Abdomen	220	Uterus, Fundus	278
Brain, Mesocephalon	058	Heart, Pulmonary artery	134	Skin, Epidermis	221	Uterus, Intramural	279
Brain, Internal Capsule	059	Heart, Pulmonary valve	135	Skin, Face	222	Uterus, Myometrium	280
Brain, Neocortex	060	Heart, Tricuspid valve	136	Skin, Limb	223	Vagina	283
Brain, Nucleus Caudatus	061	Heart, Ventricle	137	Skin, Scalp	224	Vulva	284
Brain, Occipital lobe	062	Heart, Ventricle, left	138	Soft Tissue	225	A431 (Human Epidermoid Carcinoma)	801
Brain, Olfactory nerve	063	Heart, Ventricle, right	139	Small Intestine	226	Hela (Human Acute T Cell Leukemia)	811
Brain, Optic nerve	064	Heart: Sino-Atrial Node	140	Small Intestine, Ileum	227	K562 (Human Chronic Myelogenous Leukemia; Bone Marrow)	815
Brain, Trigeminal nerve	065	Kidney	142	Small Intestine, Ileum Distal	228	MCF-7 (Human Breast Adenocarcinoma)	820
Brain, Parietal lobe	066	Kidney, left	143	Small Intestine, Ileum Proximal	229	Raji (Human Lymphoma; B Lymphoma)	830
Brain, Pineal Gland	067	Kidney, right	144	Small Intestine, Jejunum	230	Arabidopsis	310
Brain, Pituitary	068	Plasma	146			Corn	330
Brain, Pituitary Anterior	069	Larynx	147			Orange	340
Brain, Pituitary Posterior	070	Leukocyte (White Cell)				Patato	350
Brain, Pons	071	Peripheral Blood	148			Rice	360
Brain, Postcentral Gyrus	072	Liver	149			Soy Bean	370
Brain, Precentral Gyrus	073	Liver, left lobe	150			Wheat	390
Brain, Putamen (Nucleus Lentiformis)	074	Liver, right lobe	151				
Brain, Stem	075	Lung	152				
		Lung, Alveolus	153				
		Lung, Bronchi	154				
		Lung, left lower lobe	155				

