



TISSUE PRODUCTS

**Large Selection of Frozen and Paraffin
Embedded Tissue Arrays**

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Frozen Tissue Arrays



Paraffin Tissue Arrays



Custom Arrays and Services



Frozen Tissue Arrays

Manufactured using high-quality tissues and our state-of-the-art sample preparation technology. The tissues are immediately put in liquid nitrogen after being excised, and then identified by a board-licensed pathologist. For each array, up to 40 different tissues are mounted on a positively charged glass slide after preparation with proprietary techniques. Each section is approximately 5-10 µm thick. BioChain's frozen tissue arrays and tissue panels are ideal products for rapid cellular localization of RNA and protein expression.

Key Benefits & Features

- Dual applications and detection: in situ hybridization or immunohistochemistry
- Ready-to-use and pre-mounted using high quality tissues
- Suitable for both radioactive and non-radioactive detection
- Matched RNA, DNA, cDNA protein products of each tissue on the panels available for other applications upon request
- Covers a broad range of tissues within each array

Applications

- Rapid screening of your novel gene or protein expression against an extensive panel of tissues
- Gene or protein expression pattern analysis
- Comparison of expression levels of novel genes or proteins

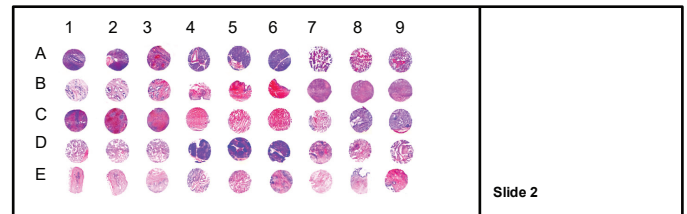
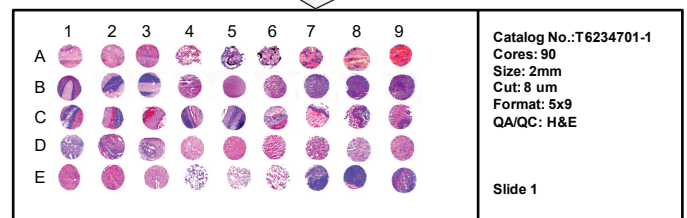
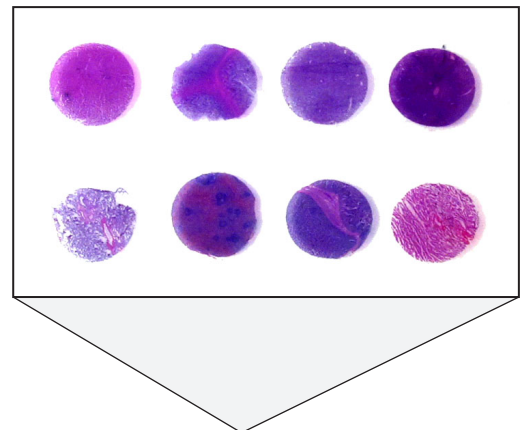


Figure1. H.E. Stained FDA Standard Frozen Tissue Array Image (Cat# T6234701)

30 different human adult normal organs according to FDA's guideline in a set of two slides with three donors per organ for better statistical result under FDA regulation

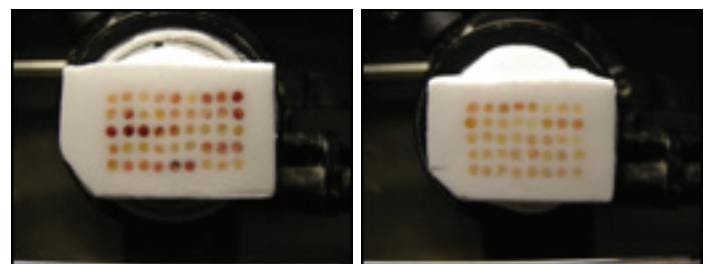


Figure 2. BioChain's Frozen Tissue Array blocks in OCT.

FDA Standard - Frozen Tissue Array

Key Benefits & Features

- Designed in close conformance with FDA guidelines for meeting requirements for IHC and IVD certification
- This tissue array has 2 slides which contain 30 different normal tissue types and 3 donors per tissue type

Frozen Tissue Array - Human Adult Normal

Key Benefits & Features

- Designed for studying tissue specific cellular localization of genes or proteins of interest in different human tissues
- Up to 20 different frozen tissues are duplicated and mounted on positively charged glass slides
- Total RNA and cDNA from those tissues are also available upon request

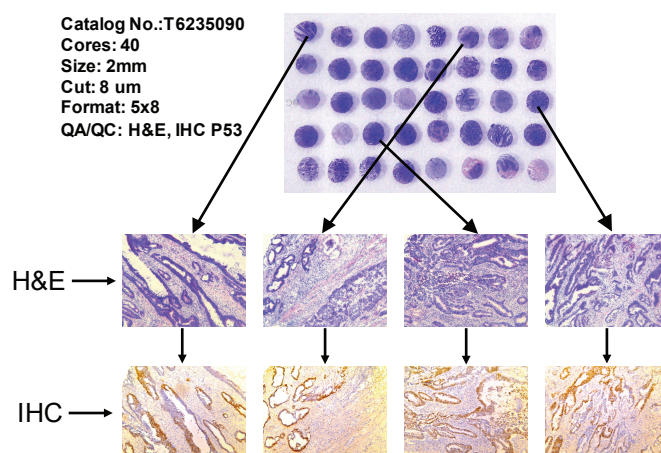


Figure 3. Tissue array containing 37 different human colon tumors and 3 normal controls stained with H&E. IHC was then performed to demonstrate tissue integrity with specific protein localization.

Frozen Tissue Array - Human Tumor

Key Benefits & Features

- Use to study tissue specific cellular localization of genes or proteins of interest in different human tissues
- Similar tumors and corresponding normal tissues are mounted on positively charged glass slides

Catalog No.	Product	Unit
T6234701-1	FDA Standard Frozen Tissue Array - Human Adult Normal	2 slides
T6234701-2	FDA Standard Frozen Tissue Array - Human Adult Normal	4 slides
T6334701-1	FDA Standard Frozen Tissue Array - Mouse Normal	2 slides
T6334701-2	FDA Standard Frozen Tissue Array - Mouse Normal	4 slides
T6434701-1	FDA Standard Frozen Tissue Array - Rat Normal	2 slides
T6434701-2	FDA Standard Frozen Tissue Array - Rat Normal	4 slides
T6234700-1	Frozen Tissue Array - Human Adult Normal, Multi-tissue I	1 slides
T6234700-5	Frozen Tissue Array - Human Adult Normal, Multi-tissue I	5 slides
T6235086-1	Frozen Tissue Array - 37 Breast Tumors and 3 Normal Controls	1 slides
T6235086-5	Frozen Tissue Array - 37 Breast Tumors and 3 Normal Controls	5 slides
T6235152-1	Frozen Tissue Array - 37 Lung Tumors and 3 Normal Controls	1 slides
T6235152-5	Frozen Tissue Array - 37 Lung Tumors and 3 Normal Controls	5 slides
T6235201-1	Frozen Tissue Array - 24 Prostate Tumors and 4 Normal Controls	1 slide

Frozen Tissue Array - Normal and Human Tumor

Key Benefits & Features

- Designed for studying tumor tissue specific cellular localization of genes or proteins of interest
- 14 tumors and 14 correspondent normal tissues are mounted on positively charged glass slides

Frozen Tissue Array - Multiple Species Adult Normal

Key Benefits & Features

- Designed for testing species reactivity of antibodies
- Frozen tissues are the preferred source for immunohistochemistry studies because native protein conformation is retained
- Same tissue type from 15 different species, including: human, mouse, rat, monkey (Cynomolgus and Rhesus), rabbit, guinea pig, goat, sheep, hamster, chicken, bovine, horse, dog, and porcine

Frozen Tissue Array - Rabbit Normal

Key Benefits & Features

- Up to 30 different tissues from the same animal (male or female) are mounted on positively charged glass slides



Catalog No.	Product	Unit
T6235700-1	Frozen Tissue Array - Human Tumor and Normal, Multi-tissue I	1 slide
T6235700-5	Frozen Tissue Array - Human Tumor and Normal, Multi-tissue I	5 slides
T6134035-1	Multiple Species Frozen Tissue Array - Brain	1 slide
T6134035-5	Multiple Species Frozen Tissue Array - Brain	5 slides
T6134149-1	Multiple Species Frozen Tissue Array - Liver	1 slide
T6134149-5	Multiple Species Frozen Tissue Array - Liver	5 slides
T6834700-G01-1	Frozen Tissue Array - Rabbit Male Adult Normal, Multi-tissue I	1 slide
T6834700-G02-1	Frozen Tissue Array - Rabbit Female Adult Normal, Multi-tissue I	1 slide

Please visit our website: biochain.com for a complete listing of our Tissue Arrays

Paraffin Tissue Arrays

Paraffin Tissue Arrays are a useful tool that can be used for the validation of biological targets and their potential clinical relevance in the development of diagnostics or therapeutics. BioChain's Paraffin Tissue Blocks are assembled in an array fashion to allow for multiple histological analyses. They can also be used to study new protein markers, DNA or RNA molecules, and disease related genes. Therefore, BioChain's Tissue Arrays provide high throughput platforms for the rapid investigation of biomarkers associated with oncology, diagnosis, and disease therapeutics. We also provide customized array construction with tissues from other diseases and other species.

Key Benefits & Features

- Manufactured using high quality tissue cores
- Suitable for both *in situ* hybridization and immunohistochemistry
- Radioactive and non-radioactive detection
- Corresponding RNA, DNA, cDNA, or protein available
- Broad coverage of tissue types
- Fresh cut sections available

Applications

- Antibody characterization
- Biomarker screening
- Drug discovery and target validation
- Companion diagnostics development
- Gene and protein expression analysis
- Immunohistochemistry (IHC) and In situ hybridization (ISH)

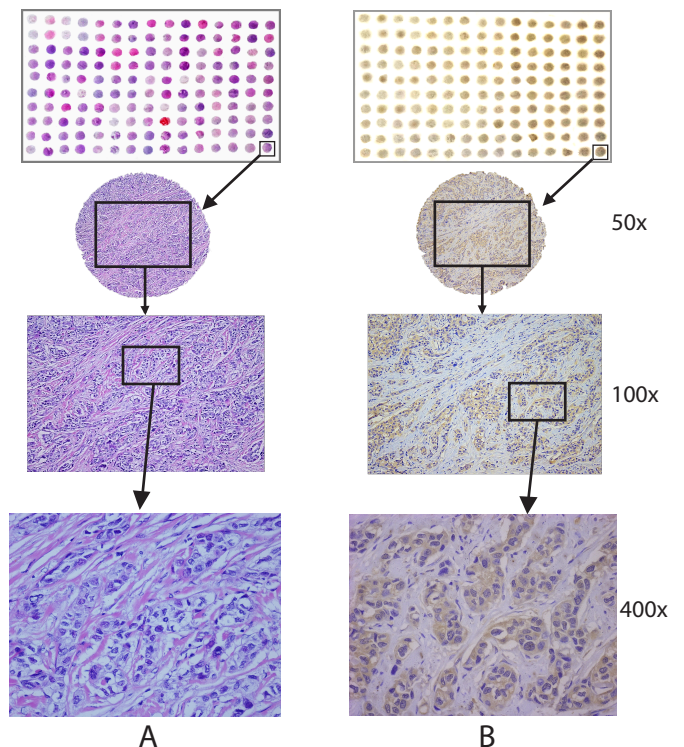


Figure 8. Image of Breast Tumor Tissue Array (Cat No. Z7020004)
A. H.E. Stained Image
B. P53 Antibody Immunostained Image

Custom Service

We offer custom synthesis of DNA, RNA, and Protein from various types of samples, such as FFPE tissue, and frozen tissue. Please contact us at info@biochain.com for more information.

Selection of Paraffin Tissue Arrays

Catalog No.	Product	Unit
T8234708-2	Human Adult Normal Tissue Array - 32 specimens	2 slides
T8234709-2	High Throughput Tissue Array - Human Adult and Fetal Normal	2 slides
T8134035-2	Multiple Species Brain Paraffin Tissue Array	2 slides
T8134149-2	Multiple Species Liver Paraffin Tissue Array	2 slides
T8235712-2	High Throughput Tissue Array Human Tumor Tissue 64 specimens	2 slides
T8235713-2	High Throughput Tissue Array Human Tumor Tissue 96 specimens	2 slides
T8235731-2	Breast Tumor and Normal Tissue Array - 60 specimens	2 slides
T8235732-2	Lung Tumor and Normal Tissue Array - 60 specimens	2 slides
T8235714d-2	Multiple Tumor Tissue Array	2 slides
Z7020038	Multiple Tumor Tissue Array - Gastrointestinal stroma (24 cases)	5 slides
Z7020105	Bladder Tumor Tissue Array	5 slides
T8235721-2	Breast Tumor Tissue Array - 64 different breast tumors	2 slides
T8235722-2	Colon Tumor Tissue Array - 64 different colon tumors	2 slide
Z7020011	Diseased Tissue Array - Cardiovascular disease (23 cases)	5 slides
Z7020026	Esophagus Tumor Tissue Array - 70 specimens	5 slides
Z7020050	Head and Neck Tumor Tissue Array - 18 specimens	5 slides
Z7020052	Kidney Tumor Tissue Array - (70 cases)	5 slides
Z7020056	Liver Tumor Tissue Array - (70 cases)	5 slides
T8235724-2	Lung Tumor Tissue Array - 64 Different Lung Tumors	2 slides
Z7020070	Lymphoma Tissue Array - (70 cases)	5 slides
Z7020073	Metastatic Tumor Tissue Array - (18 cases)	5 slides
T8235725-2	Ovary Tumor Tissue Array - 64 Different Ovary Tumors	2 slides
Z7020090	Pancreas Tumor Tissue Array - 48 specimens	5 slides
Z7020091	Prostate Tumor Tissue Array - 48 specimens	5 slides
T8235723-2	Rectum Tumor Tissue Array - 66 specimens	2 slides
Z7020093	Skin Tumor Tissue Array - 96 specimens	5 slides
Z7020031	Stomach Tumor Tissue Array - 48 specimens	5 slides
Z7020097	Thyroid Tumor Tissue Array - 24 specimens	5 slides
Z7020014	Uterus Cervix Tumor Tissue Array - 24 specimens	5 slides
Z7020022	Endometrium Tumor Tissue Array - 150 specimens	5 slides
Z7020003	Monkey Tissue Array - 22 specimens	5 slides
Z7020001	Mouse Tissue Array - 54 specimens	5 slides
Z7020002	Rat Tissue Array - 54 specimens	5 slides

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Custom Tissue Section and Array

BioChain offers services for preparation of tissue sections, arrays, or cell sectioning to customer's specifications. Tissues and cells could be provided by BioChain or the customer. Tissue sections and cells are prepared in RNase- and DNase-free environments and are suitable for many kinds of analyses, such as in situ hybridization, immunohistochemistry, PCR, and NGS.

Tissue Sectioning service (Paraffin and frozen sections):

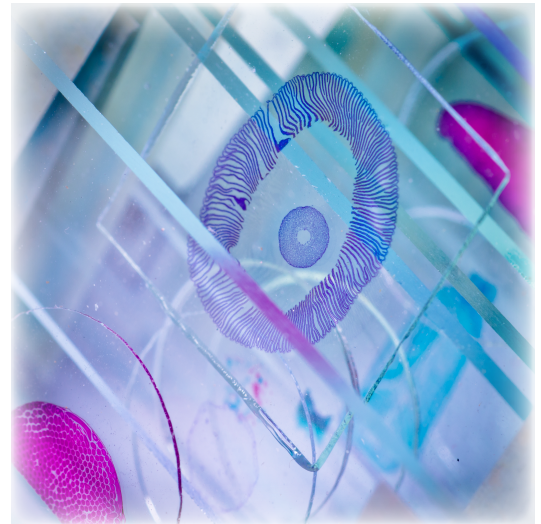
- FFPE - Sectioning tissue blocks at 5 - 50 μm
- Mounting sections on positively charged slides or slides treated for enhancement of adhesion
- Fresh harvesting tissues
- Fixation of tissues: in customer specified fixative
- Processing and embedding tissues: either in paraffin or O.C.T.

Tissue Microarray (TMA) Sectioning service (Paraffin and frozen sections):

- Similarly to the tissue sectioning, TMAs are prepared according to customer's requirements

Cell Sectioning service (paraffin and frozen sections):

- We can culture and collect cells for processing or process frozen cell pellets directly
- Fixation of cells: in customer specified fixative
- Inclusion of cell pellet in Histogel (if requested) before embedding in paraffin or frozen blocks
- Processing and embedding cell pellet in paraffin or in O.C.T. similar as for tissues
- Section and mount at 5 - 50 μm



We also offer:

- Sample procurement and collection services
- Research Project support: we will handle the sample preparation, and data analysis
- Custom extractions and purification (DNA, RNA, and Protein)
- Custom Staining Services



