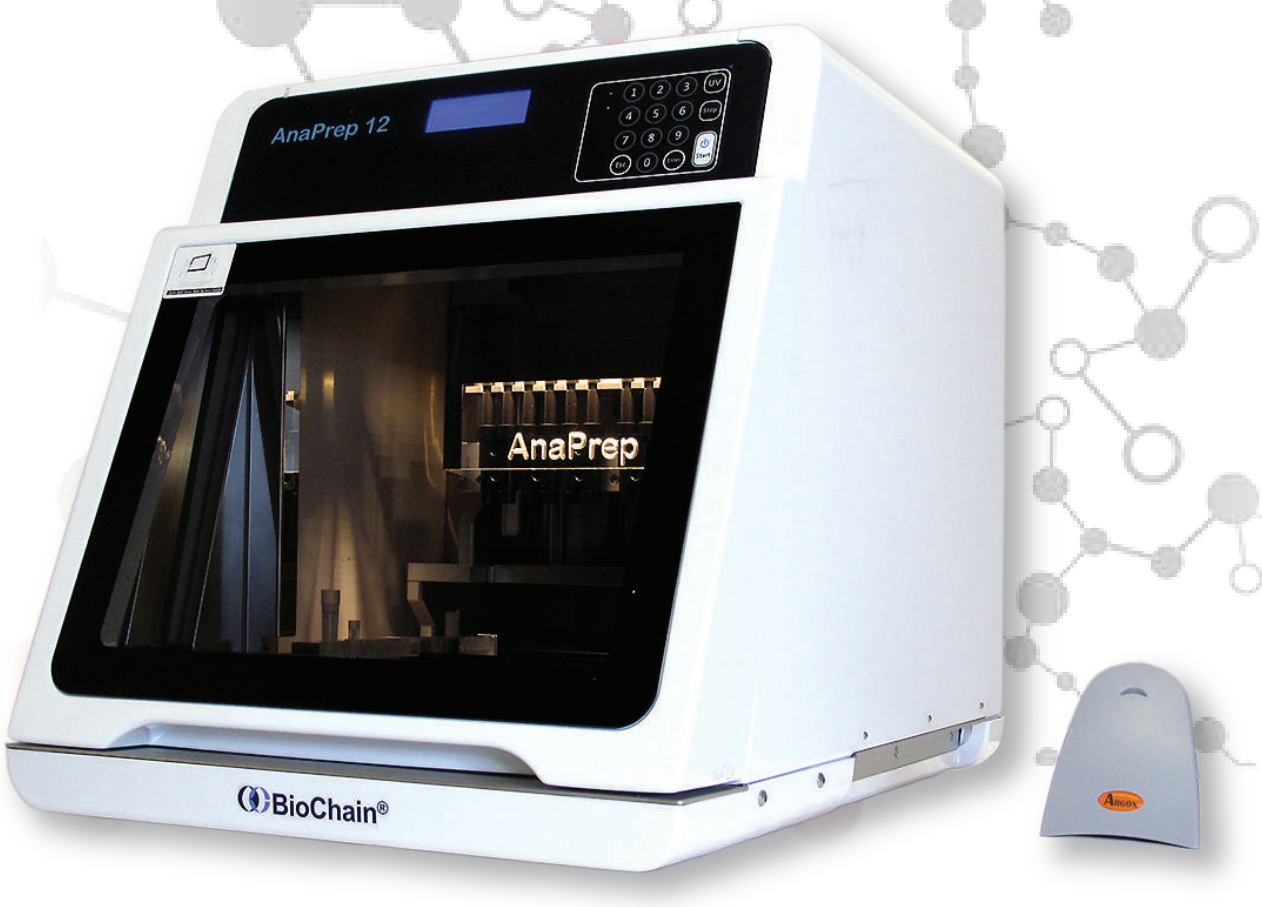
TISSUE PRODUCTS

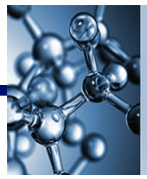
Large Selection of Frozen and Paraffin Embedded Tissue Arrays and Panels

BioChain®

Sample Preparation for Diagnostics and Life Science Research

AnaPrep 12: Simplifying DNA & RNA Extraction





Automated Nucleic Acid Preparation System

BioChain®

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

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BioChain®
Sample Preparation for Diagnostics and Life Science Research

BioChain Institute, Inc. • 39600 Eureka Dr. • Newark, CA 94560, USA
To order: order@biochain.com • www.biochain.com

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

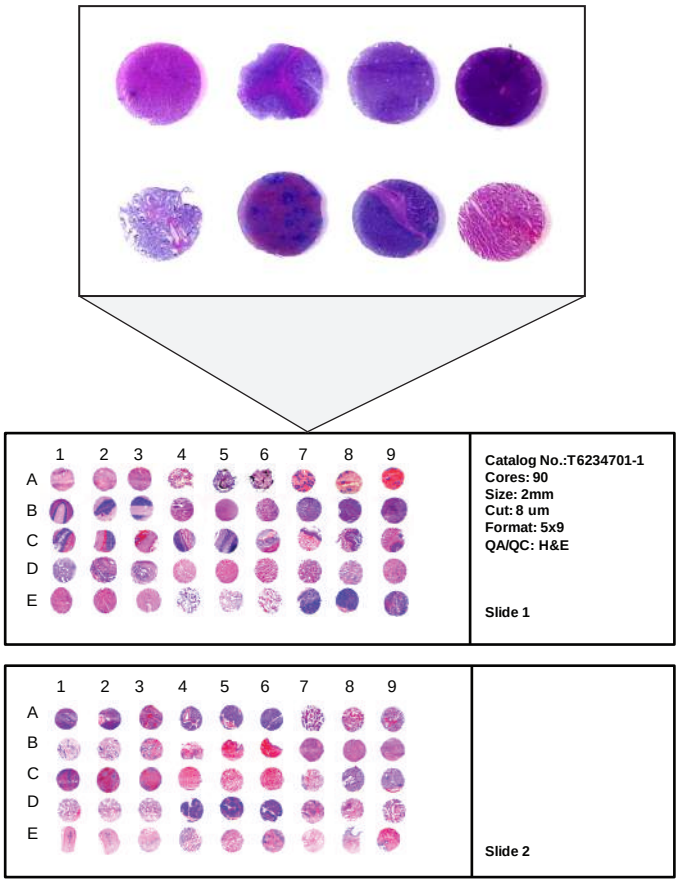


Figure1. H.E. Stained FDA Standard Frozen Tissue Array Image (Cat# T6234701)
30 different human adult normal organs according to FDA's guideline in a set of two slides with three donors per organ for better statistical result under FDA regulation

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

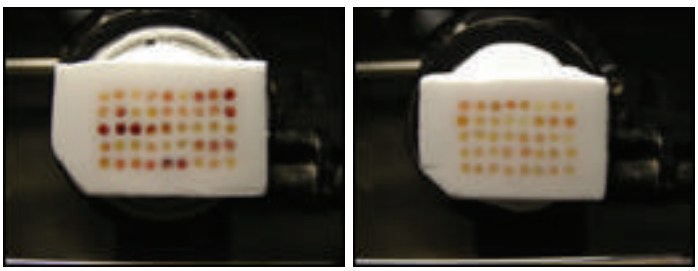


Figure 2. BioChain's Frozen Tissue Array blocks in OCT.

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

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

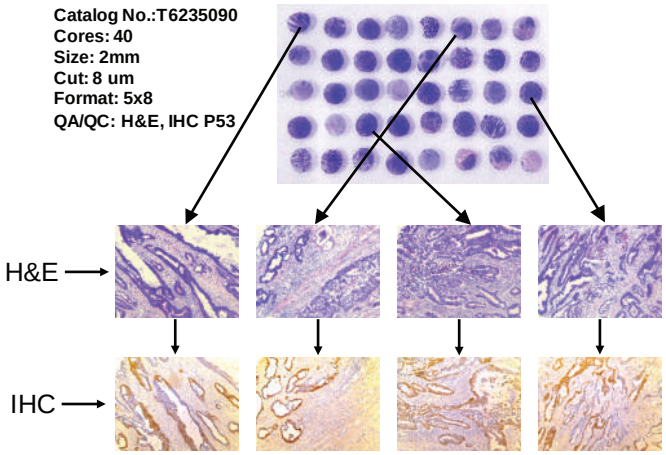


Figure 3. Tissue array containing 37 different human colon tumors and 3 normal controls stained with H&E. IHC was then performed to demonstrate tissue integrity with specific protein localization.

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

Frozen Tissue Panels

BioChain's Frozen Tissue Panels are 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, 5 - 8 different frozen tissues are arrayed on one positively charged glass slide after preparation with proprietary techniques. Each section is approximately 5 um 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

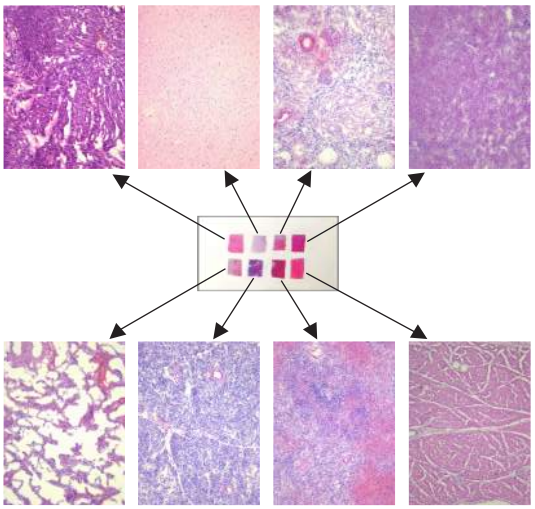


Figure 4. Image of Human Frozen Tissue Section Panel (Cat# T6234431) with H.E stain.
Top line from left to right: heart, brain, kidney, and liver
Bottom line from left to right: lung, pancreas, spleen, and skeletal muscle.

Human Frozen Tissue Panel

Key Benefits & Features

- Designed for studying tissue specific cellular localization of genes or proteins of interest
- 8 different frozen tissues are mounted on a positively charged glass slide

Animal Frozen Tissue Panel

Key Benefits & Features

- BioChain's multiple frozen tissue panels contain: Balb/c mouse, Rhesus monkey, Cynomolgus monkey, and normal rat tissues
- 8 different frozen tissues are mounted on a positively charged glass slide

Frozen Tissue Section Panel - Human Neurological Diseases

Key Benefits & Features

- BioChain's multiple frozen tissue panels contain: Balb/c mouse, Rhesus monkey, Cynomolgus monkey, and normal rat tissues
- 8 different frozen tissues are mounted on a positively charged glass slide

Whole Brain Segmentation Panel

Key Benefits & Features

- Designed for whole brain study of small animals
- Brains have been sliced into 6 coronal regions which were then embedded into the same OCT block and sectioned
- Useful for determining neurotransmitter and metabolite concentration in reproducible brain regions

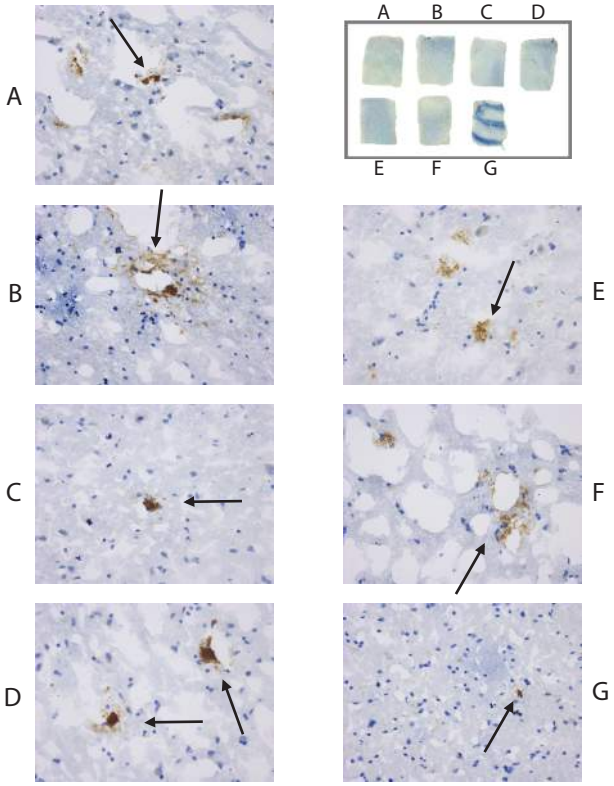


Figure 5. Images of Alzheimer's disease Frozen Tissue Panel (Cat# T6236564Alz) at 400x. This slide has been stained using IHC method to detect Beta Amyloid plaques. The amyloid plaques can be detected in most Alzheimer's diseased brain tissue and are indicated by the arrows shown above.

Catalog No.	Product	Unit
T6234431	Human Frozen Tissue Panel	5 slides
T6234432	Human Frozen Tissue Panel	5 slides
T6234433	Human Frozen Tissue Panel	5 slides
T6334447	Animal Frozen Tissue Panel (Mouse)	5 slides
T6434448	Animal Frozen Tissue Panel (Rat)	5 slides
T6534448	Animal Frozen Tissue Panel (Rh. Monkey)	5 slides
T6534448-Cy	Animal Frozen Tissue Panel (Cy. Monkey)	5 slides
T6236444Alz	Frozen Tissue Section Panel - Alzheimer's Disease, Multi-tissue I	5 slides
T6236445Alz	Frozen Tissue Section Panel - Alzheimer's Disease, Multi-tissue II	5 slides
T6236446Alz	Frozen Tissue Section Panel - Alzheimer's Disease, Multi-tissue III	5 slides
T6236564Alz	Frozen Tissue Section Panel - Alzheimer's Disease, Multi-tissue IV	5 slides
T6334035	Mouse Whole Brain Segmentation Panel	5 slides

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

Frozen Tissue Sections

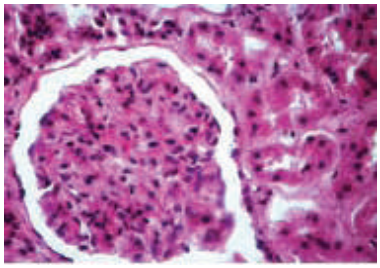
BioChain's frozen tissue product line encompasses a large selection of tissue sections that are ideal for rapidly identifying the cellular localization of RNA or protein. To make frozen tissue sections, the tissues are excised, and then snap frozen in liquid nitrogen. A single frozen tissue section of 5-10 µm thickness is mounted on a positively charged glass slide. Frozen tissue section slides are fixed and dehydrated with acetone for consistent results in both *in situ* hybridization and immunohistochemistry.

Key Benefits & Features

- BioChain is a major tissue resource in the research market
- Tissues are available from a wide variety of hard-to-obtain sources
- Suitable for both immunohistochemistry and *in situ* hybridization
- Documentation of tissues' clinical history is available upon request

Applications

- Cellular localization of tissue specific mRNA and protein expression
- Identification of tumor and disease specific genes, proteins by *in situ* hybridization, immunohistochemistry, and in situ PCR
- Comparison of the locations of novel genes in different tissues
- Control slides for immunohistochemistry studies



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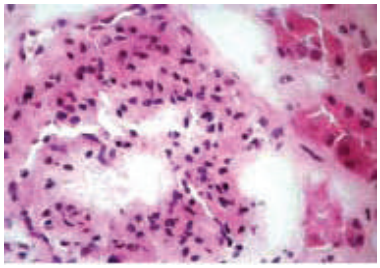


B

Figure 7. H.E. stained image of both paraffin embedded and frozen kidney tissue section.
A. Paraffin embedded kidney section
B. Frozen kidney section

Available Stock Frozen Tissue Sections

- Human Adult Normal
- Human Fetal Normal
- Human Tumors
- Human Lupus (Diseased)
- Human Neurological Diseases:
  - Alzheimer's Disease Brain
  - Dementia Disease Brain
  - Depression Disease Brain
  - Multiple Sclerosis Brain
  - Parkinson's Disease Brain
  - Progressive Supranuclear Palsy Disease Brain
- Human Diabetic Disease
- Human Heart Disease
- Human Lung Disease

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)

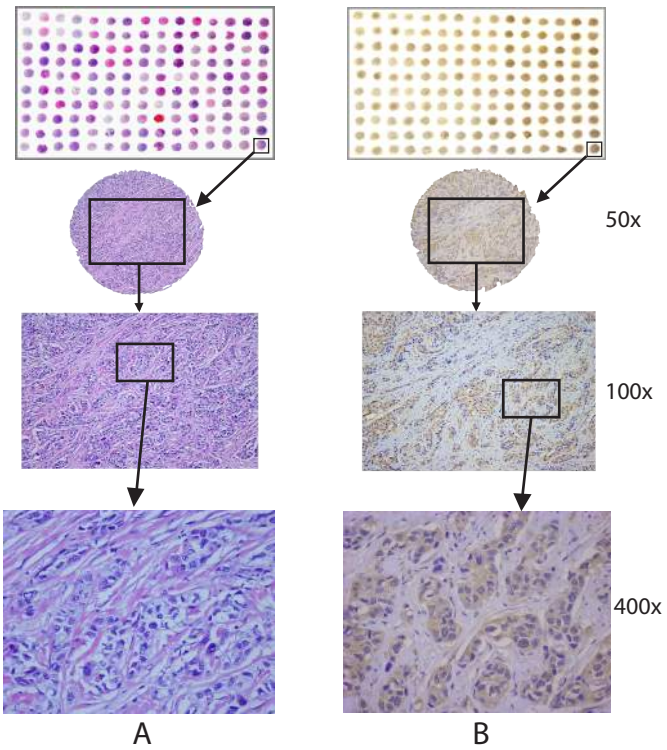


Figure 8. Image of Breast Tumor Tissue Array (Cat No. Z7020004)
A. H.E. Stained Image
B. P53 Antibody Immunostained Image

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

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

Paraffin Tissue Panels

BioChain's Paraffin embedded Tissue Panel is made from the same high quality tissues used in our tissue slide products and is supplied ready-to-use. Tissues are arrayed on positively charged glass slides. Our tissue panel is one of the best products for rapid detection of gene and protein expression in a wide variety of human adult, fetal normal tissues, and human tumor tissues.

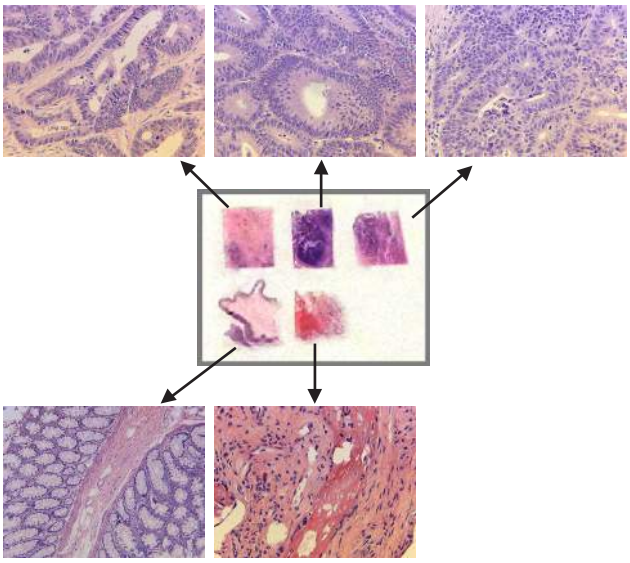


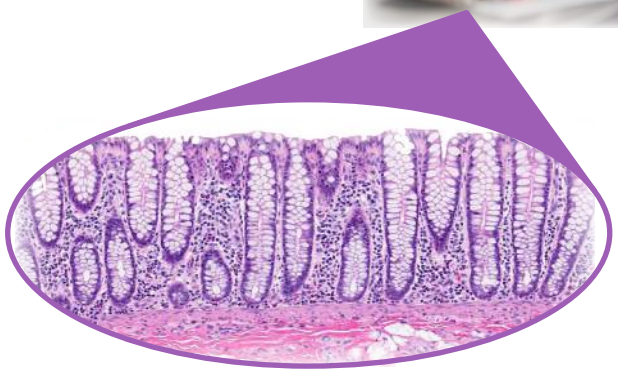
Figure 9. Image of H.E. Stained Human Paraffin Tissue Panel Cat#T8235090. Top line from left to right: colon tumor from different donors,
Bottom line from left to right: normal colon, normal placenta.

Key Benefits & Features

- Dual applications and detection: *in situ* hybridization or immunohistochemistry
- Ready-to-use and pre-arrayed with high quality tissues
- Suitable for both radioactive and non-radioactive detection
- Matched RNA, DNA, cDNA or protein products of each tissue on array available for other applications upon request
- Covers broad range of human adult, fetal, tumor, diseased, and animal tissues within each panel

Applications

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



Selection of Paraffin Tissue Panels

Catalog No.	Product	Unit
T8334035	Mouse Whole Brain Segmentation Panel	5 slides
T8234431	Human Adult Normal Tissue, Multi-tissue (8) I: Major Organs	5 slides
T8234601	Human Adult Normal Tissue, Multi-tissue (8) Neural	5 slides
T8234602	Human Adult Normal Tissue, Multi-tissue (8) Cardiovascular	5 slides
T8234603	Human Adult Normal Tissue, Multi-tissue (8) Urinary & Respiratory	5 slides
T8234604	Human Adult Normal Tissue, Multi-tissue (8) Digestive	5 slides
T8234605	Human Adult Normal Tissue, Multi-tissue (8) Reproductive	5 slides
T8234606	Human Adult Normal Tissue, Multi-tissue (8) Endocrine	5 slides
T8234607	Human Adult Normal Tissue, Multi-tissue (8) Hematal & Immune	5 slides
T8244431	Human Fetal Normal Tissue, Multi-tissue I, 8 different tissues	5 slides
T8235417	Human Tumor, Different Tumor Type, Different Donors, Panel I	5 slides
T8235418	Human Tumor, Different Tumor Type, Different Donors, Panel II	5 slides
T8235419	Human Tumor, Different Tumor Type, Different Donors, Panel III	5 slides
T8235420	Human Tumor, Different Tumor Type, Different Donors, Panel IV	5 slides
T8235421	Human Tumor, Different Tumor Type, Different Donors, Panel V	5 slides
T8235422	Human Tumor, Different Tumor Type, Different Donors, Panel VI	5 slides
T8235437	Human Tumor, Different Tumor Type, Different Donors, Panel I	5 slides
T8235438	Human Tumor, Different Tumor Type, Different Donors, Panel II	5 slides
T8235439	Human Tumor, Different Tumor Type, Different Donors, Panel III	5 slides
T8235440	Human Tumor, Different Tumor Type, Different Donors, Panel IV	5 slides
T8235441	Human Tumor, Different Tumor Type, Different Donors, Panel V	5 slides
T8235442	Human Tumor, Different Tumor Type, Different Donors, Panel VI	5 slides
T8236444Alz	Human Disease Tissue, Alzheimer's Disease, Multi-tissue I	5 slides
T8236445Alz	Human Disease Tissue, Alzheimer's Disease, Multi-tissue II	5 slides
T8236446Alz	Human Disease Tissue, Alzheimer's Disease, Multi-tissue III	5 slides
T8236564Alz	Human Disease Tissue, Alzheimer's Disease, Multi-tissue IV	5 slides
T8235086	Human Tumor Tissue - Breast Tumor, Different Donors	5 slides
T8235090	Human Tumor Tissue - Colon Tumor, Different Donors	5 slides
T8235149	Human Tumor Tissue - Liver Tumor, Different Donors	5 slides
T8235152	Human Tumor Tissue - Lung Tumor, Different Donors	5 slides
T8235183	Human Tumor Tissue - Ovary Tumor, Different Donors	5 slides
T8334447	Mouse Normal Tissue, Multi-tissue (8) I: Major Organs	5 slides
T8434448	Rat Normal Tissue, Multi-tissue (8) I: Major Organs	5 slides

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

Paraffin Tissue Sections

Formalin fixed, paraffin embedded (FFPE) whole tissue sections are an ideal way for rapidly determining the cellular localization of DNA, RNA and protein markers. This is a pertinent step for investigating and validating biological targets and their relevance in diagnostics or drug development.

BioChain's Paraffin Tissue Sections have been meticulously selected and identified by our board licensed pathologist and are based on the sample repository network established by the IRB-approved ethical standard and procedures. Our FFPE tissues have been fixed in formalin after being excised, sectioned at 5 µm thickness, and mounted on positively charged glass slides. Our repository covers a wide variety of species and diseases including human (adult and fetal) normal tissues, human diseased and tumor tissues, as well as mouse, rat, and monkey tissues. We also offer custom sample preparation and specimen procurement to fit your needs.

Key Benefits & Features

- Tissue from a wide variety of difficult to obtain tissue sources
- Suitable for immunohistochemistry, *in situ* hybridization assays, and *in situ* PCR

Applications

- Cellular localization of tissue specific mRNA and protein expression
- Comparison of the locations of novel genes in different tissues
- FFPE DNA and RNA isolation
- Antibody validation

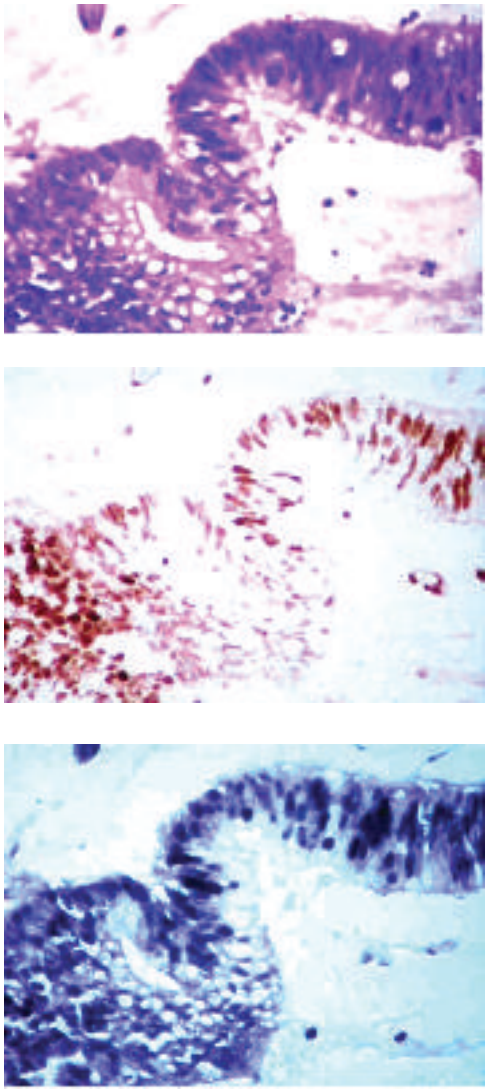


Figure 10. In Situ Hybridization and Immunohistochemistry of P53 gene in human colon tumor tissue. Three serial paraffin embedded tissue sections were analyzed for P53 gene expression in human colon tumor tissue. It is shown that P53 mRNA and P53 protein are localized in the same area under 400x magnification.
A. H.E. stained image
B. Image of immunohistochemistry
C. Image of in situ hybridization

Selection of Paraffin Tissue Sections

Catalog No.	Product	Unit
T2234013	Paraffin Tissue Section - Human Adult Normal: Blood Vessel: Artery	5 slides
T2234035	Paraffin Tissue Section - Human Adult Normal: Brain	5 slides
T2234037	Paraffin Tissue Section - Human Adult Normal: Brain: Basal Ganglia	5 slides
T2234039	Paraffin Tissue Section - Human Adult Normal: Brain: Cerebellum	5 slides
T2234079	Paraffin Tissue Section - Human Adult Normal: Brain: Thalamus	5 slides
T2234086	Paraffin Tissue Section - Human Adult Normal: Breast	5 slides
T2234090	Paraffin Tissue Section - Human Adult Normal: Colon	5 slides
T2234106	Paraffin Tissue Section - Human Adult Normal: Esophagus	5 slides
T2234110	Paraffin Tissue Section - Human Adult Normal: Eye: Retina	5 slides
T2234260	Paraffin Tissue Section - Human Adult Normal: Testis	5 slides
T2234136	Paraffin Tissue Section - Human Adult Normal: Heart: Tricuspid Valve	5 slides
T2234142	Paraffin Tissue Section - Human Adult Normal: Kidney	5 slides
T2234152	Paraffin Tissue Section - Human Adult Normal: Lung	5 slides
T2234188	Paraffin Tissue Section - Human Adult Normal: Pancreas	5 slides
T2234201	Paraffin Tissue Section - Human Adult Normal: Prostate	5 slides
T2234171	Paraffin Tissue Section - Human Adult Normal: Skeletal Muscle	5 slides
T2236024Dia	Human Diabetic Diseased Tissue: Bone Marrow	5 slides
T2236188Dia	Human Diabetic Diseased Tissue: Pancreas	5 slides
T2244051	Paraffin Tissue Section - Human Fetal Normal: Brain: Frontal Lobe	5 slides
T2244004	Paraffin Tissue Section - Human Fetal Normal: Adrenal	5 slides
T2236139Hd-1	Paraffin Tissue Section - Arrhythmia, infarct: Heart Ventricle, right	5 slides
T2236122Lcs	Paraffin Tissue Section - Liver Cirrhosis: Heart	5 slides
T2236152Ld-1	Paraffin Tissue Section - Asthma: Lung	5 slides
T2236142Lup	Paraffin Tissue Section - Lupus: Kidney	5 slides
T2236035Alz	Paraffin Tissue Section - Alzheimers Disease: Brain	5 slides
T2236078Dem	Paraffin Tissue Section - Dementia: Brain: Temporal Lobe	5 slides
T2236039Msc	Multiple Sclerosis Disease: Brain: Cerebellum	5 slides
T2236052Par	Paraffin Tissue Section - Parkinson's Disease: Brain: Hippocampus	5 slides
T2235004-1	Paraffin Tissue Section - Human Adrenal Tumor	5 slides
T2235035-10	Paraffin Tissue Section - Human Brain Tumor	5 slides
T2235086	Paraffin Tissue Section - Human Breast Tumor	5 slides
T2235090-1	Paraffin Tissue Section - Human Colon Tumor	5 slides
T2235265-5	Paraffin Tissue Section - Human Thyroid Tumor	5 slides

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

Matched Pair Frozen and Paraffin Tissue Sections

Matched Pair Frozen and Paraffin Tissue Sections have been generated from human tumors and the corresponding normal tissues of the same donor. BioChain offers Primary Pair (PP), as well as Primary and Metastatic Pair (PM) products. Primary Pair tissue specimens are those that have been sectioned from primary tumors and its adjacent unaffected normal tissue. Primary Metastatic Pair tissue specimens have been sectioned from primary tumors and corresponding metastatic tumors.

Each tissue section is produced using proprietary sample preparation technology from the finest quality of tissue specimens. Tissues are sectioned at 5 µm thickness and are carefully mounted on positively charged glass slides. Afterwards, each lot is ensured for high-quality using H&E staining. This product is a useful tool for accelerating gene expression analysis by identifying tumor-specific genes and tumor metastatic genes. Patient demographic and disease related history is available.

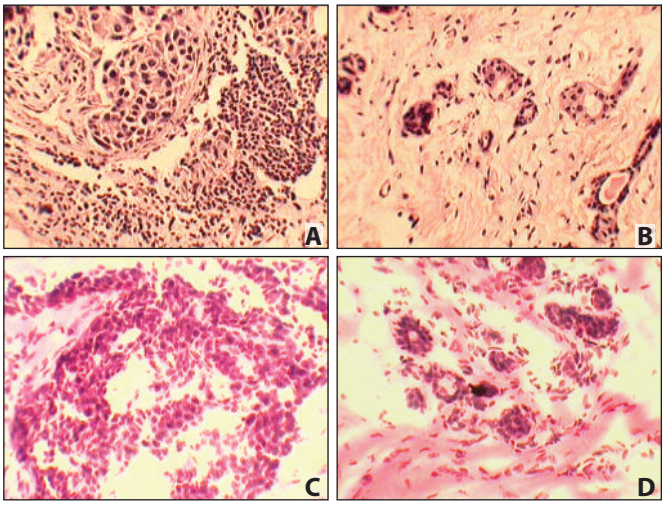


Figure 11. HE Staining of Tumor Matched Pair Tissue Sections.
Panel A. Paraffin Embedded Breast Tumor Tissue
Panel B. Paraffin Embedded Breast Tumor Adjacent Normal Tissue
Panel C. Frozen Breast Tumor Tissue
Panel D. Frozen Breast Tumor Adjacent Normal Tissue

Key Benefits & Features

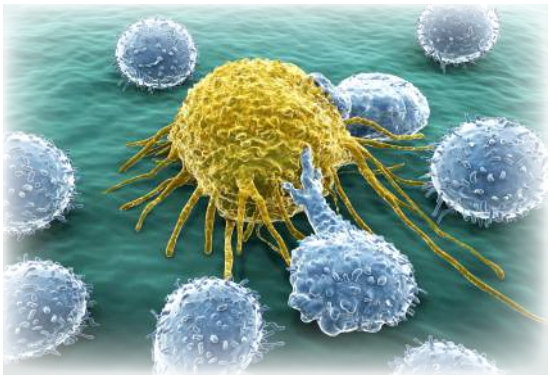
- Tumor/adjacent normal or primary/metastatic tumor on the same slide
- Identification of tumor specific genes and proteins
- Extensive quality control procedures to ensure high quality

Applications

- Cellular localization of tissue specific mRNA and protein expression
- Comparison of the locations of novel genes in different tissues
- Suitable for both immunohistochemistry, in situ hybridization, and in situ PCR detection

Selection of Matched Pair - Frozen Tissue Sections

Catalog No.	Product	Unit
T6235086-PM	Matched Pair - Frozen Tissue - Human Primary and Matched Metastatic Tumor: Breast	5 slides x2
T6235090-PM	Matched Pair - Frozen Tissue - Human Primary and Matched Metastatic Tumor: Colon	5 slides x2
T6235152-PM	Matched Pair - Frozen Tissue - Human Primary and Matched Metastatic Tumor: Lung	5 slides x2
T6235149-PM	Matched Pair - Frozen Tissue - Human Primary and Matched Metastatic Tumor: Liver	5 slides x2
T6235086-PP	Matched Pair - Frozen Tissue - Human Primary Tumor and Normal: Breast	5 slides x2
T6235090-PP	Matched Pair - Frozen Tissue - Human Primary Tumor and Normal: Colon	5 slides x2
T6235152-PP	Matched Pair - Frozen Tissue - Human Primary Tumor and Normal: Lung	5 slides x2
T6235248-PP	Matched Pair - Frozen Tissue - Human Primary Tumor and Normal: Stomach	5 slides x2



Selection of Matched Pair - Paraffin Tissue Sections

Catalog No.	Product	Unit
T8235086-PM	Matched Pair - Paraffin Tissue - Human Primary and Matched Metastatic Tumor: Breast	5 slides x2
T8235090-PM	Matched Pair - Paraffin Tissue - Human Primary and Matched Metastatic Tumor: Colon	5 slides x2
T8235142-PM	Matched Pair - Paraffin Tissue - Human Primary and Matched Metastatic Tumor:	5 slides x2
T8235149-PM	Matched Pair - Paraffin Tissue - Human Primary and Matched Metastatic Tumor: Liver	5 slides x2
T8235090-PP	Matched Pair - Paraffin Tissue - Human Primary Tumor and Normal: Colon	5 slides x2
T8235086-PP	Matched Pair - Paraffin Tissue - Human Primary Tumor and Normal: Breast	5 slides x2
T8235152-PP	Matched Pair - Paraffin Tissue - Human Primary Tumor and Normal: Lung	5 slides x2
T8235248-PP	Matched Pair - Paraffin Tissue - Human Primary Tumor and Normal: Stomach	5 slides x2

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

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

BioChain has a large variety of tissues specimens.
Choose from the selection below to fit your specific needs.

Tissue Name	Code
Abdominal	001
Adipose, Brown (fetal)	002
Adipose, Subcutaneous or organ(White)	003
Adrenal	004
Adrenal, cortex	005
Appendix	006
Adrenal, medulla	007
Buccal Mucosa	008
Bladder	010
Blood vessel	011
Blood vessel, Aorta	012
Blood vessel, Artery	013
Blood vessel, Brain Artery	014
Blood vessel, Brain Vein	015
Blood Vessel, Caval Vein	016
Blood vessel, Coronary Artery	017
Blood vessel, Coronary Vein	018
Blood vessel, Hemangioma	019
Blood vessel, Vein	020
Bone	023
Bone Marrow	024
Bone, Cartilage	025
Bone, Elastic cartilage	026
Bone, Epiphysial plate	027
Bone, Fibrocartilage	028
Bone, Hyaline cartilage	029
Bone, Rib	030
Bone, Skull	031
Bone, Sternum	032
Brain	035
Brain, Amygdala	036
Brain, Basal Ganglia	037
Brain, Cerebellar peduncles	038
Brain, Cerebellum	039
Brain, Cerebellum, Left	040
Brain, Cerebellum, Right	041
Brain, Cerebral Cortex	042
Brain, Cerebral Meninges	043
Brain, Choroid plexus	044
Brain, Corpus Callosum	045
Brain, Corpus Callosum area	046
Brain, Corpus mammillare	047
Brain, lateral ventricle wall	048
Brain, Diencephalon	049
Brain, Dura mater	050
Brain, Frontal lobe	051
Brain, Hippocampus	052
Brain, Hippocampus area	053
Brain, Hypothalamus	054
Brain, Insula	055
Brain, Medulla oblongata	057
Brain, Mesocephalon	058
Brain, Internal Capsule	059
Brain, Neocortex	060
Brain, Nucleus Caudatus	061
Brain, Occipital lobe	062
Brain, Olfactory nerve	063
Brain, Optic nerve	064
Brain, Trigeminal nerve	065
Brain, Parietal lobe	066
Brain, Pineal Gland	067
Brain, Pituitary	068
Brain, Pituitary Anterior	069
Brain, Pituitary Posterior	070
Brain, Pons	071
Brain, Postcentral Gyrus	072
Brain, Precentral Gyrus	073
Brain, Putamen (Nucleus Lentiformis)	074
Brain, Stem	075
Brain, Substantia nigra	076
Brain, Grey Matter	077
Brain, Temporal lobe	078
Brain, Thalamus	079
Brain, Tonsilla cerebelli	080
Brain, Tuberculum cinereum	081
Brain, Vermis cerebelli	082
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Brain: Colliculus Inferior	084
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