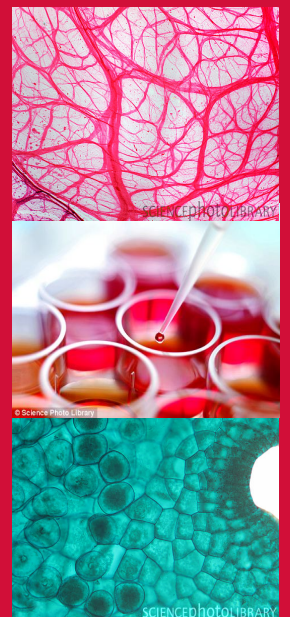


Tissue Sections and Tissue Arrays

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Frozen Tissue Arrays

Introduction

amsbio's Frozen Tissue Array is made from the same high quality tissues used in our frozen tissue slide products. Fresh frozen tissues are arrayed on positively charged glass slides. Our tissue array is one of the best products for rapid detection of gene and protein expression in a wide variety of human adult normal tissues, and human tumor tissues

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 or protein products of each tissue on the panels available for other applications upon request
- Covers broad range of tissues within each array
- Human placenta is included as an inter-panel control in every panel for comparison between different panels among different users

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

Description

Frozen Tissue Arrays and Tissue Panels are manufactured using high-quality tissues. 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 modified glass slide after preparation with proprietary techniques, while for each panel 5 to 8 different tissues are mounted on a modified glass slide. Each section is approximately 5 µm thick. H.E. staining, immunostaining, and in situ hybridization with proliferating cellular nuclear antigen (PCNA) antibody and P53 gene probe, respectively, ensure the quality of frozen tissue arrays and panels. amsbio's frozen tissue arrays and tissue panels are ideal products for rapid cellular localization of RNA and protein expression.

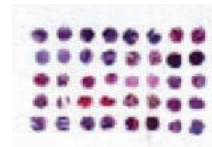
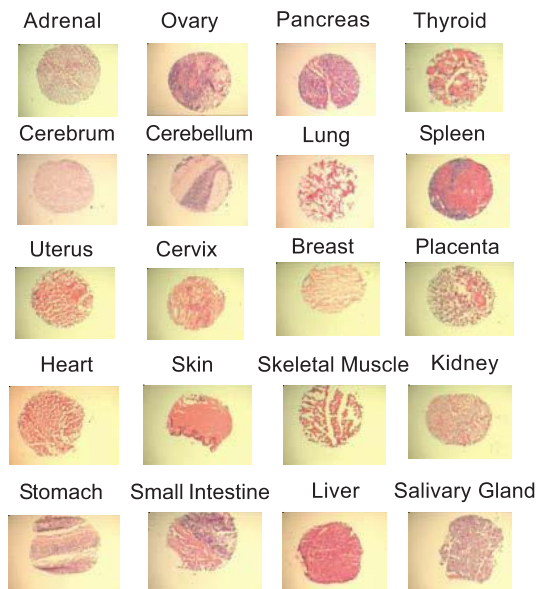


Fig. 4.1. H.E. Stained 40 spot frozen tissue array image (Cat# T6234700)
20 tissues were duplicated and mounted on one slide

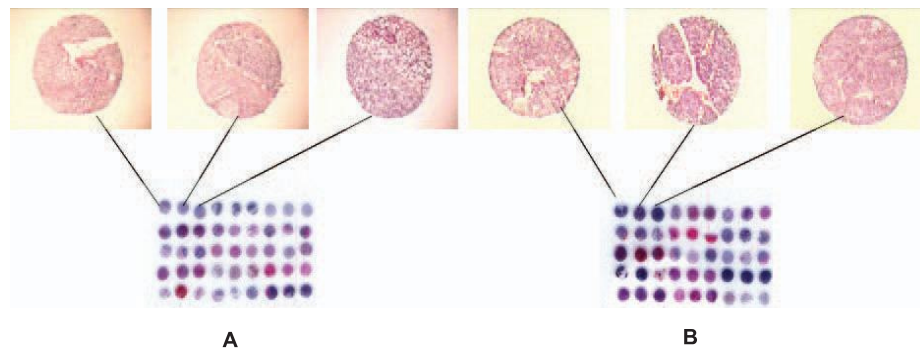


Fig. 4.2. H.E. Stained FDA Standard Frozen Tissue Array Image (Cat# T6234701)

1. 30 different human adult normal organs according to FDA's guideline in a set of two slides to speed up antibody validation for FDA approval
 2. There are three donors per organ for better statistical result under FDA regulation
 3. Human antibody validation across 30 tissue at once with less labor and cost
 4. Gain information on expression pattern, intensity, and distribution of target proteins.
- Panel A: Slide 1: First 3 spots are adrenal from 3 different donors
Panel B: Slide 2: First 3 spots are pancreas from 3 different donors

Frozen Tissue Sections

FDA Standard - Frozen Tissue Array (TfHAN)

This FDA standard Frozen Tissue Array is suitable for meeting US FDA requirements for IHC (Immunohistochemistry) and IVD (In vitro Diagnostic Devices) certification and also European CE Mark. There are two slides in the tissue array which contain 30 different human normal tissue types and 3 donors per tissue type.

Product Info.	Cat. #	Size
FDA Standard Frozen Tissue Array	T6234701-1	2 slides
FDA Standard Frozen Tissue Array	T6234701-2	4 slides

Frozen Tissue Array - Human Adult Normal (TfHAN)

amsbio's human adult normal multiple frozen tissue arrays are 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 mounted on positively charged glass slides. Total RNA and cDNA from those tissues may also be available upon request.

Product Info.	Cat. #	Size
Frozen Tissue Array - Human Adult Normal Tissue, Multi-tissue I	T6234700-2	2 slides
Frozen Tissue Array - Human Adult Normal Tissue, Multi-tissue I	T6234700-5	5 slides

Frozen Tissue Array - Multiple Species Adult Normal (TfZAN)

Multiple Species Frozen Tissue Array is designed for testing the species reactivity of antibodies. This array can bring very important information of antibodies in immunohistochemistry studies. Besides, frozen tissues are always the solution in case antibodies can not recognize their antigens in paraffin embedded tissues. The same type of tissues from 15 different species, including human, mouse, rat, Rhesus monkey, Cynomolgus monkey, rabbit, guinea pig, goat, sheep, hamster, chicken, bovine, horse, dog, and porcine, are arrayed on positively charged glass slides. The Multiple Species frozen tissue array can also enable you to study expression of genes or proteins of interest among different animals.

Product Info.	Cat. #	Size
Multiple Species Frozen Tissue Array - Brain	T6134035-2	2 slides
Multiple Species Frozen Tissue Array - Brain	T6134035-5	5 slides
Multiple Species Frozen Tissue Array - Liver	T6134149-2	2 slides
Multiple Species Frozen Tissue Array - Liver	T6134149-5	5 slides

Frozen Tissue Array - Human Tumor and Normal (TfHANT)

amsbio's human tumor and normal multiple frozen tissue arrays are designed for studying tumor tissue specific cellular localization of genes or proteins of interest in different human tissues. 14 tumors and 14 correspondant normal tissues are mounted on positively charged glass slides. Total RNA and cDNA from those tissues may also be available upon request.

Product Info.	Cat. #	Size
Frozen Tissue Array - Human Tumor and Normal Tissue, Multi-tissue I	T6235700-2	2 slides
Frozen Tissue Array - Human Tumor and Normal Tissue, Multi-tissue I	T6235700-5	5 slides

Frozen Tissue Array - Human Tumor (TfHAT)

AMSBIO's human tumor frozen tissue arrays are designed for studying tumor tissue specific cellular localization of genes or proteins of interest in different human tissues. 37 same kind of tumors and 3 corresponding normal tissues are mounted on positively charged glass slides. Total RNA and cDNA from those tissues may also be available upon request.

Product Info.	Cat. #	Size
Frozen Tissue Array - 37 Different Breast Tumors and 3 Corresponding Normal Controls	T6235086-2	2 slides
Frozen Tissue Array - 37 Different Breast Tumors and 3 Corresponding Normal Controls	T6235086-5	5 slides

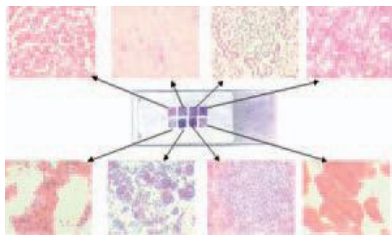
Frozen Tissue Sections

Human Frozen Tissue Panel

amsbio's human adult normal multiple frozen tissue panels are designed for studying tissue specific cellular localization of genes or proteins of interest in different monkey tissues. 8 different frozen tissues are mounted on positively charged glass slides. cDNA from those tissues may also be available for PCR detection.

Product Info. TeHAN-m-I
Cat. # T6234431
Size 5 slides

Tissue Source	
1	Heart
2	Brain
3	Kidney
4	Liver
5	Lung
6	Pancreas
7	Spleen
8	Skeletal Muscle



Animal Frozen Tissue Panels

amsbio's Balb/C mouse, Rhesus monkey, Cynomolgus monkey, and rat normal multiple frozen tissue panels are designed for studying tissue specific cellular localization of genes or proteins of interest in different tissues. 8 different frozen tissues are mounted on positively charged glass slides. cDNA from those tissues may also be available for PCR detection.

Product Info.	Tissue Panel-I	Tissue Panel-III
Cat. #	T6334447 (Mouse)	T6334423 (Mouse)
Cat. #	T6434448 (Rat)	T6434423 (Rat)
Cat. #	T6534448 (Rh. Monkey)	T6534423 (Rh. Monkey)
Cat. #	T6534448-Cy (Cy. Monkey)	T6534423-Cy (Cy. Monkey)
Size	5 slides	5 slides

Tissue Source		
1	Heart	Heart
2	Brain	Brain
3	Kidney	Kidney
4	Liver	Lung
5	Lung	Spleen
6	Spleen	Skeletal Muscle
7	Small Intestine	Small Intestine
8	Skeletal Muscle	Human Placenta

Fig. 4.3. The Image of Human Frozen Tissue Section Panel (Cat# T6234431)

Top line from left to right: heart, brain, kidney, and liver
 Bottom line from left to right: lung, pancreas, spleen, and skeletal muscle.

Frozen Tissue Section Panel - Human - Neurological Diseases (TfHAD)

amsbio's neurological diseased frozen tissue panels are designed for studying Alzheimer, Parkinson's Disease, Dementia, Multiple Sclerosis, Progressive Supranuclear Palsy (PSP), and Depression diseases. 6-8 same diseased frozen tissues with 5-10 μm thickness are mounted on a positively charged glass slide. The slides are fixed and dehydrated with acetone for consistent results with in situ hybridization and immunohistochemistry.

Product Info.	TsHAD-AI-I	TsHAD-AI-II	TsHAD-AI-III	TsHAD-AI-IV
Cat. #	T6236444Alz	T6236445Alz	T6236446Alz	T6236564Alz
Size	5 slides	5 slides	5 slides	5 slides

Tissue Source

1	Frontal Lobe	Frontal Lobe	Precentral Gyrus (Alz)	Precentral Gyrus
2	Temporal Lobe	Temporal Lobe	Precentral Gyrus (Normal)	Postcentral Gyurs
3	Hippocampus	Parietal Lobe	Postcentral Gyurs (Alz)	Frontal Lobe
4	Amygdala	Occipital Lobe	Postcentral Gyurs (Normal)	Temporal Lobe
5	Precentral Gyrus	Pons	Occipital Lobe (Alz)	Parietal Lobe
6	Postcentral Gyurs	Thalamus	Occipital Lobe (Normal)	Occipital Lobe
7	Occipital Lobe	Corpus Callosum	Cerebellum (Alz)	Cerebellum
8			Cerebellum (Normal)	

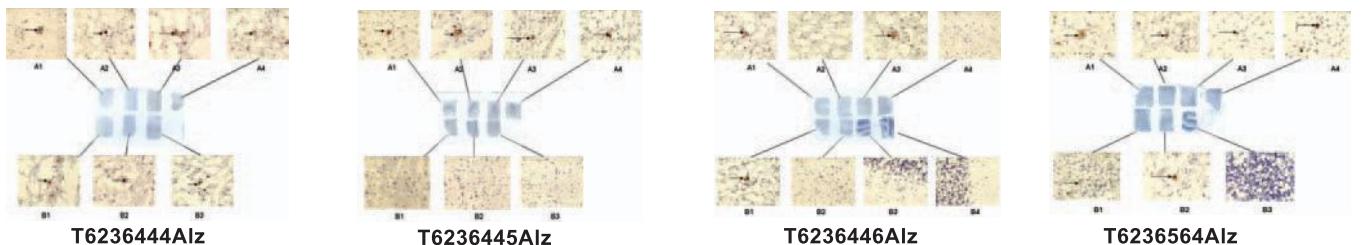


Fig. 4.4. The Image of Beta Amyloid IHC Stained of Alzheimer's diseased Frozen Tissue Panel
 The amyloid plaques can be detected in most of Alzheimer's diseased brain tissues indicated by the arrows

Frozen Tissue Sections

Introduction

amsbio's frozen tissue sections are ideal for rapidly identifying the cellular localization of RNA or protein. To make frozen tissue sections, tissues are excised, snap frozen via liquid nitrogen, and stored at -70°C. A single frozen tissue section with 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 with in situ hybridization and immunohistochemistry.

Features

- Tissue from a wide variety of difficult to obtain tissue sources
- Suitable for both immunohistochemistry and in situ hybridization
- Documentation of tissues' clinical histories 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, or in situ PCR
- Comparison of the locations of novel genes in different tissues
- Control slides for immunohistochemistry studies

Description

amsbio's frozen tissue section line encompasses a large selection of slides of tissue sections that are well suited for immunohistochemistry and in situ hybridization. It includes human adult and fetal tissues, human diseased and tumor tissues, mouse,

rat, and monkey tissues. The frozen tissue section are approximately 5-10 µm thick. All tissues are diagnosed by licensed pathologists. Accurate documentation and clinical histories of the tissues can be supplied upon request.

Storage Conditions

Store fresh frozen tissue section slides at -70°C

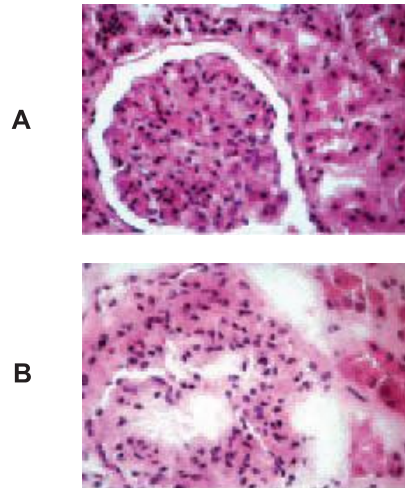


Fig. 4.5. H.E. stained image of both paraffin embedded and frozen kidney tissue section.

A. Paraffin embedded kidney section
B. Frozen kidney section

Human Adult Normal Frozen Tissue Sections (TfHAN)

Product Info.	Cat. #	Size
Adipose	T1234003	5 slides
Adrenal	T1234004	5 slides
Appendix	T1234006	5 slides
Bladder	T1234010	5 slides
Blood vessel: Artery	T1234013	5 slides
Blood vessel: Vein	T1234020	5 slides
Brain	T1234035	5 slides
Brain: Amygdala	T1234036	5 slides
Brain: Cerebellum	T1234039	5 slides
Brain: Cerebellum (left)	T1234040	5 slides
Brain: Cerebellum (right)	T1234041	5 slides
Brain: Cerebral Cortex	T1234042	5 slides
Brain: Cerebral Meninges	T1234043	5 slides
Brain: Corpus Callosum	T1234045	5 slides
Brain: Diencephalon	T1234049	5 slides
Brain: Frontal Lobe	T1234051	5 slides
Brain: Hippocampus	T1234052	5 slides
Brain: Medulla Oblongata	T1234057	5 slides
Brain: Midbrain	T1234059	5 slides
Brain: Occipital Lobe	T1234062	5 slides
Brain: Olfactory (region)	T1234063	5 slides
Brain: Optic Nerve	T1234064	5 slides
Brain: Parietal Lobe	T1234066	5 slides
Brain: Pons	T1234071	5 slides
Brain: Postcentral Gyrus	T1234072	5 slides
Brain: Precentral Gyrus	T1234073	5 slides
Brain: Brain Stem	T1234075	5 slides
Brain: Temporal Lobe	T1234078	5 slides
Brain: Thalamus	T1234079	5 slides
Brain: Vermis Cerebelli	T1234082	5 slides
Breast	T1234086	5 slides
Colon	T1234090	5 slides
Ductus deferens	T1234100	5 slides
Epididymus	T1234105	5 slides
Esophagus	T1234106	5 slides

Human Adult Normal FrozenTissue Sections (TfHAN)

Product Info.	Cat. #	Size
Gallbladder	T1234118	5 slides
Heart	T1234122	5 slides
Heart: Arcus Aortae	T1234124	5 slides
Heart: Atrium (left)	T1234126	5 slides
Heart: Atrium (right)	T1234127	5 slides
Heart: Auricula (left)	T1234128	5 slides
Heart: Auricula (right)	T1234129	5 slides
Heart: Interventricular Septum	T1234130	5 slides
Heart: Pericardium	T1234133	5 slides
Heart: Pulmonary Artery	T1234134	5 slides
Heart: Ventricle (left)	T1234138	5 slides
Heart: Ventricle (right)	T1234139	5 slides
Kidney	T1234142	5 slides
Liver	T1234149	5 slides
Lung	T1234152	5 slides
Trachea	T1234160	5 slides
Lymph node	T1234161	5 slides
Submaxillary gland	T1234165	5 slides
Diaphragm	T1234169	5 slides
Skeletal Muscle	T1234171	5 slides
Ovary	T1234183	5 slides
Pancreas	T1234188	5 slides
Parotid	T1234190	5 slides
Penis	T1234194	5 slides
Placenta	T1234200	5 slides
Prostate	T1234201	5 slides
Rectum	T1234206	5 slides
Skin	T1234218	5 slides
Small intestine	T1234226	5 slides
Spinal cord	T1234234	5 slides
Spleen	T1234246	5 slides
Stomach	T1234248	5 slides
Testis	T1234260	5 slides
Throat	T1234263	5 slides
Uterus	T1234274	5 slides
Vagina	T1234283	5 slides
Parathyroid	T1234189	5 slides
Retina	T1234110	5 slides

Frozen Tissue Sections

Human Fetal Normal Frozen Tissue Sections (TfHFN)

Product Info.	Cat. #	Size
Bladder	T1244010	5 slides
Brain	T1244035	5 slides
Brain: Cerebellum (left)	T1244040	5 slides
Brain: Cerebellum (right)	T1244041	5 slides
Brain: Diencephalon	T1244049	5 slides
Brain: Frontal Lobe	T1244051	5 slides
Brain: Occipital Lobe	T1244062	5 slides
Brain: Parietal Lobe	T1244066	5 slides
Brain: Brain Stem	T1244075	5 slides
Brain: Temporal Lobe	T1244078	5 slides
Colon	T1244090	5 slides
Heart	T1244122	5 slides
Kidney	T1244142	5 slides
Liver	T1244149	5 slides
Lung	T1244152	5 slides
Diaphragm	T1244169	5 slides
Skeletal Muscle	T1244171	5 slides
Pancreas	T1244188	5 slides
Prostate	T1244201	5 slides
Rectum	T1244206	5 slides
Small Intestine	T1244226	5 slides
Spinal Cord	T1244234	5 slides
Spleen	T1244246	5 slides
Stomach	T1244248	5 slides
Testis	T1244260	5 slides
Throat	T1244263	5 slides
Thymus	T1244264	5 slides
Tongue	T1244267	5 slides
Umbilical Cord	T1244272	5 slides
Uterus	T1244274	5 slides

Human Tumor Frozen Tissue Sections (TfHAT)

Product Info.	Cat. #	Size
Adrenal	T1235004	5 slides
Bladder	T1235010	5 slides
Bone	T1235023	5 slides
Brain	T1235035	5 slides
Breast	T1235086	5 slides
Colon	T1235090	5 slides
Esophagus	T1235106	5 slides
Kidney	T1235142	5 slides
Liver	T1235149	5 slides
Lung	T1235152	5 slides
Lymphoma	T1235161	5 slides
Ovary	T1235183	5 slides
Pancreas	T1235188	5 slides
Parathyroid	T1235189	5 slides
Parotid	T1235190	5 slides
Prostate	T1235201	5 slides
Rectum	T1235206	5 slides
Skin	T1235218	5 slides
Stomach	T1235248	5 slides
Testis	T1235260	5 slides
Thymoma	T1235264	5 slides
Thyroid	T1235265	5 slides
Uterus	T1235274	5 slides

Human Lupus Diseased Frozen Tissue Sections (TfHAD-Lup)

Product Info.	Cat. #	Size
Adrenal	T1236004Lup	5 slides
Blood vessel: Artery	T1236013Lup	5 slides
Heart: Pericardium	T1236133Lup	5 slides
Kidney	T1236142Lup	5 slides
Liver: Left lobe	T1236150Lup	5 slides
Liver: Right lobe	T1236151Lup	5 slides
Lung	T1236152Lup	5 slides
Lymph node	T1236161Lup	5 slides
Ovary	T1236183Lup	5 slides
Pancreas	T1236188Lup	5 slides
Spinal cord	T1236234Lup	5 slides
Spleen	T1236246Lup	5 slides

Human Liver Cirrhosis Diseased Frozen Tissue Sections (TfHAD-Lcs)

Product Info.	Cat. #	Size
Esophagus	T1236106Lcs	5 slides
Prostate	T1236201Lcs	5 slides

Human Frozen Tissue Section Neurological Diseases (TfHAD-Brain)

Frozen Tissue Slides are ideal for rapidly identifying cellular localization of RNA or protein. A single human Alzheimer's Disease, Parkinson's Disease, Dementia, Multiple Sclerosis, Progressive Supranuclear Palsy (PSP), and Depression diseased tissue with 5-10 μ m thickness is mounted on a positively charged glass slide. The slides are fixed and dehydrated with acetone for consistent results with in situ hybridization and immunohistochemistry. More organs may be available upon request.

Human Alzheimer's Diseased Brain Frozen Tissue Sections (TfHAD-Alz)

Product Info.	Cat. #	Size	Price
Brain	T1236035Alz	5 slides	
Brain: Amygdala	T1236036Alz	5 slides	
Brain: Cerebellum	T1236039Alz	5 slides	
Brain: Corpus Callosum	T1236045Alz	5 slides	
Brain: Frontal Lobe	T1236051Alz	5 slides	
Brain: Hippocampus	T1236052Alz	5 slides	
Brain: Medulla oblongata	T1236057Alz	5 slides	
Brain: Occipital Lobe	T1236062Alz	5 slides	
Brain: Parietal Lobe	T1236066Alz	5 slides	
Brain: Pituitary	T1236068Alz	5 slides	
Brain: Pons	T1236071Alz	5 slides	
Brain: Postcentral Gyrus (Sensation)	T1236072Alz	5 slides	
Brain: Precentral Gyrus (Movement)	T1236073Alz	5 slides	
Brain: Temporal Lobe	T1236078Alz	5 slides	
Brain: Thalamus	T1236079Alz	5 slides	

Human Dementia Diseased Brain Frozen Tissue Sections (TfHAD-Dem)

Product Info.	Cat. #	Size
Brain: Frontal Lobe	T1236051Dem	5 slides
Brain: Occipital Lobe	T1236062Dem	5 slides
Brain: Parietal Lobe	T1236066Dem	5 slides
Brain: Temporal Lobe	T1236078Dem	5 slides
Brain: Thalamus	T1236079Dem	5 slides
Brain: Hippocampus	T1236052Dem	5 slides

Human Depression Diseased Brain Frozen Tissue Sections (TfHAD-Dep)

Product Info.	Cat. #	Size
Brain: Frontal Lobe	T1236051Dep	5 slides
Brain: Occipital Lobe	T1236062Dep	5 slides
Brain: Parietal Lobe	T1236066Dep	5 slides
Brain: Temporal Lobe	T1236078Dep	5 slides
Brain: Thalamus	T1236079Dep	5 slides
Brain: Hippocampus	T1236052Dep	5 slides

Human Multiple Sclerosis Diseased Brain Frozen Tissue Sections (TfHAD-Msc)

Product Info.	Cat. #	Size
Brain	T1236035Msc	5 slides
Brain: Amygdala	T1236036Msc	5 slides
Brain: Cerebellum	T1236039Msc	5 slides
Brain: Corpus Callosum	T1236045Msc	5 slides
Brain: Frontal Lobe	T1236051Msc	5 slides
Brain: Medulla oblongata	T1236057Msc	5 slides
Brain: Occipital Lobe	T1236062Msc	5 slides
Brain: Parietal Lobe	T1236066Msc	5 slides
Brain: Pituitary	T1236068Msc	5 slides
Brain: Pons	T1236071Msc	5 slides
Brain: Postcentral Gyrus	T1236072Msc	5 slides
Brain: Precentral Gyrus	T1236073Msc	5 slides
Brain: Temporal Lobe	T1236078Msc	5 slides
Brain: Thalamus	T1236079Msc	5 slides
Brain: Hippocampus	T1236052Msc	5 slides

Frozen Tissue Sections

Human Parkinson's Disease Brain Frozen Tissue Sections (TfHAD-Par)

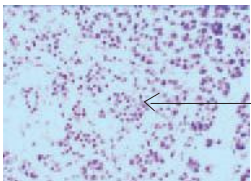
Product Info.	Cat. #	Size
Brain	T1236035Par	5 slides
Brain: Amygdala	T1236036Par	5 slides
Brain: Cerebellum	T1236039Par	5 slides
Brain: Corpus Callosum	T1236045Par	5 slides
Brain: Frontal Lobe	T1236051Par	5 slides
Brain: Medulla oblongata	T1236057Par	5 slides
Brain: Occipital Lobe	T1236062Par	5 slides
Brain: Parietal Lobe	T1236066Par	5 slides
Brain: Pituitary	T1236068Par	5 slides
Brain: Pons	T1236071Par	5 slides
Brain: Postcentral Gyrus	T1236072Par	5 slides
Brain: Precentral Gyrus	T1236073Par	5 slides
Brain: Temporal Lobe	T1236078Par	5 slides
Brain: Thalamus	T1236079Par	5 slides
Brain:Hippocampus	T1236052Par	5 slides

Human Progressive Supranuclear Palsy Diseased Brain Frozen Tissue Sections (TfHAD-Psp)

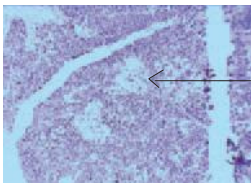
Product Info.	Cat. #	Size
Brain: Frontal Lobe	T1236051PSP	5 slides
Brain: Medulla oblongata	T1236057PSP	5 slides
Brain: Occipital Lobe	T1236062PSP	5 slides
Brain: Parietal Lobe	T1236066PSP	5 slides
Brain: Temporal Lobe	T1236078PSP	5 slides
Brain:Cerebellum	T1236039PSP	5 slides
Brain:Pons	T1236071PSP	5 slides

Human Diabetic Diseased Frozen Tissue Sections (TfHAD-Dia)

Product Info.	Cat. #	Size
Adrenal	T1236004Dia	5 slides
Brain	T1236035Dia	5 slides
Colon	T1236090Dia	5 slides
Duodenum	T1236101Dia	5 slides
Esophagus	T1236106Dia	5 slides
Heart	T1236122Dia	5 slides
Kidney	T1236142Dia	5 slides
Liver	T1236149Dia	5 slides
Lung	T1236152Dia	5 slides
Skeletal Muscle	T1236171Dia	5 slides
Pancreas	T1236188Dia	5 slides
Skin	T1236218Dia	5 slides
Small Intestine: Ileum	T1236227Dia	5 slides
Small Intestine: Jejunum	T1236230Dia	5 slides
Spleen	T1236246Dia	5 slides
Stomach	T1236248Dia	5 slides
Subcutaneous Adipose	T1236003SubDia	5 slides
Visceral Adipose	T1236003VisDia	5 slides
Bone Marrow	T1236024Dia	5 slides
Eye	T1236108Dia	5 slides



Islet in normal pancreas (T1234188)



Islet in diabetes pancreas (T1236188Dia): loss of beta cells and large local deposits of amyloid

Fig. 4.6. Comparison of Normal Pancreas Tissue and Type II Diabetes Pancreas Tissue

Human Lung Diseased Frozen Tissue Sections (TfHAD-Ld)

Frozen Tissue Slides are ideal for rapidly identifying cellular localization of RNA or protein. A single human asthma, bronchitis, pneumonia, and pulmonary embolism lung diseased tissue with 5-10 µm thickness is mounted on a positively charged glass slide. The slides are fixed and dehydrated with acetone for consistent results with in situ hybridization and immunohistochemistry. More organs maybe available upon request.

Product Info.	Cat. #	Size
Asthma: Lung	T1236152Ld-1	5 slides
Bronchitis: Lung	T1236152Ld-2	5 slides
Emphysema: Lung	T1236152Ld-3	5 slides
Pneumonia: Lung	T1236152Ld-4	5 slides
Pulmonary embolism: Lung	T1236152Ld-5	5 slides

Human Heart Diseased Frozen Tissue Sections (TfHAD-Hd)

Frozen Tissue Slides are ideal for rapidly identifying cellular localization of RNA or protein. A single human hypertension, coronary artery disease, arteriosclerosis, congestive heart failure heart diseased tissue with 5-10 µm thickness is mounted on a positively charged glass slide. The slides are fixed and dehydrated with acetone for consistent results with in situ hybridization and immunohistochemistry. More organs maybe available upon request.

Product Info.	Cat. #	Size
Arrhythmia, infarct: Heart	T1236122Hd-1	5 slides
Arrhythmia, infarct: Heart Atrium, left	T1236126Hd-1	5 slides
Arrhythmia, infarct: Heart Atrium, right	T1236127Hd-1	5 slides
Arrhythmia, infarct: Heart Ventricle, left	T1236138Hd-1	5 slides
Arrhythmia, infarct: Heart Ventricle, right	T1236139Hd-1	5 slides
Arrhythmia, infarct: Interventricular Septum	T1236130Hd-1	5 slides
Congenital heart disease: Heart	T1236122Hd-3	5 slides
Congestive Heart Failure: Heart	T1236122Hd-6	5 slides
Coronary Artery Atherosclerosis: Heart	T1236122Hd-5	5 slides
Hypertension: Artery	T1236013Hd-2	5 slides
Hypertension: Heart	T1236122Hd-2	5 slides
Hypertension: Heart Atrium, left	T1236126Hd-2	5 slides
Hypertension: Heart Atrium, right	T1236127Hd-2	5 slides
Hypertension: Heart Ventricle, left	T1236138Hd-2	5 slides
Hypertension: Heart Ventricle, right	T1236139Hd-2	5 slides
Hypertension: Interventricular Septum	T1236130Hd-2	5 slides
Hypertension: Kidney	T1236142Hd-2	5 slides
Hypertension: Vein	T1236020Hd-2	5 slides
Arteriosclerosis: Aorta	T1236012Hd-4	5 slides
Arteriosclerosis: Artery	T1236013Hd-4	5 slides

Frozen Tissue Sections

Bovine Frozen Tissue Sections (TfBAN)

Product Info.	Cat. #	Size
Brain	T1B34035	5 slides
Colon	T1B34090	5 slides
Heart	T1B34122	5 slides
Kidney	T1B34142	5 slides
Liver	T1B34149	5 slides
Lung	T1B34152	5 slides
Skeletal Muscle	T1B34171	5 slides
Rectum	T1B34206	5 slides
Small Intestine	T1B34226	5 slides
Spleen	T1B34246	5 slides
Stomach	T1B34248	5 slides
Uterus: Cervix	T1B34275	5 slides

Guinea Pig Frozen Tissue Sections (TfGAN)

Product Info.	Cat. #	Size
Brain	T1G34035	5 slides
Colon	T1G34090	5 slides
Heart	T1G34122	5 slides
Kidney	T1G34142	5 slides
Liver	T1G34149	5 slides
Lung	T1G34152	5 slides
Skeletal Muscle	T1G34171	5 slides
Small Intestine	T1G34226	5 slides
Stomach	T1G34248	5 slides

Cynomolgus Monkey Frozen Tissue Sections (TfSAN)

Product Info.	Cat. #	Size
Adipose	T1534003-Cy	5 slides
Appendix	T1534006-Cy	5 slides
Bladder	T1534010-Cy	5 slides
Blood vessel: Artery	T1534013-Cy	5 slides
Blood Vessel: Vein	T1534020-Cy	5 slides
Brain	T1534035-Cy	5 slides
Breast	T1534086-Cy	5 slides
Cecum	T1534089-Cy	5 slides
Colon	T1534090-Cy	5 slides
Colon Ascending	T1534091-Cy	5 slides
Colon Descending	T1534092-Cy	5 slides
Colon Sigmoid	T1534095-Cy	5 slides
Colon Transverse	T1534096-Cy	5 slides
Ductus Deferens	T1534100-Cy	5 slides
Duodenum	T1534101-Cy	5 slides
Epididymus	T1534105-Cy	5 slides
Esophagus	T1534106-Cy	5 slides
Fallopian Tube	T1534115-Cy	5 slides
Gallbladder	T1534118-Cy	5 slides
Heart	T1534122-Cy	5 slides
Heart: Pericardium	T1534133-Cy	5 slides
Kidney	T1534142-Cy	5 slides
Liver	T1534149-Cy	5 slides
Liver: Left Lobe	T1534150-Cy	5 slides
Liver: Right Lobe	T1534151-Cy	5 slides
Lung	T1534152-Cy	5 slides
Trachea	T1534160-Cy	5 slides
Submaxillary Gland	T1534165-Cy	5 slides
Diaphragm	T1534169-Cy	5 slides
Skeletal Muscle	T1534171-Cy	5 slides
Ovary	T1534183-Cy	5 slides
Pancreas	T1534188-Cy	5 slides
Parotid	T1534190-Cy	5 slides
Penis	T1534194-Cy	5 slides
Prostate	T1534201-Cy	5 slides
Rectum	T1534206-Cy	5 slides
Skin	T1534218-Cy	5 slides
Small Intestine	T1534226-Cy	5 slides
Small Intestine: Ileum	T1534227-Cy	5 slides
Small Intestine: Jejunum	T1534230-Cy	5 slides
Spinal cord	T1534234-Cy	5 slides
Spleen	T1534246-Cy	5 slides
Stomach	T1534248-Cy	5 slides
Stomach: Cardia	T1534250-Cy	5 slides
Testis	T1534260-Cy	5 slides
Thymus	T1534264-Cy	5 slides
Thyroid	T1534265-Cy	5 slides
Tongue	T1534267-Cy	5 slides
Tonsil	T1534268-Cy	5 slides
Ureter	T1534273-Cy	5 slides
Uterus	T1534274-Cy	5 slides
Uterus: Cervix	T1534275-Cy	5 slides
Vagina	T1534283-Cy	5 slides

Rhesus Monkey Frozen Tissue Sections (TfSAN)

Product Info.	Cat. #	Size
Adipose	T1534003	5 slides
Appendix	T1534006	5 slides
Bladder	T1534010	5 slides
Blood Vessel: Artery	T1534013	5 slides
Blood Vessel: Vein	T1534020	5 slides
Brain	T1534035	5 slides
Breast	T1534086	5 slides
Cecum	T1534089	5 slides
Colon	T1534090	5 slides
Colon Ascending	T1534091	5 slides
Colon Descending	T1534092	5 slides
Colon Sigmoid	T1534095	5 slides
Colon Transverse	T1534096	5 slides
Ductus Deferens	T1534100	5 slides
Duodenum	T1534101	5 slides
Epididymus	T1534105	5 slides
Esophagus	T1534106	5 slides
Fallopian Tube	T1534115	5 slides
Gallbladder	T1534118	5 slides
Heart	T1534122	5 slides
Heart: Pericardium	T1534133	5 slides
Kidney	T1534142	5 slides
Liver	T1534149	5 slides
Liver: Left Lobe	T1534150	5 slides
Liver: Right Lobe	T1534151	5 slides
Lung	T1534152	5 slides
Trachea	T1534160	5 slides
Lymph Node	T1534161	5 slides
Submaxillary Gland	T1534165	5 slides
Diaphragm	T1534169	5 slides
Skeletal Muscle	T1534171	5 slides
Ovary	T1534183	5 slides
Pancreas	T1534188	5 slides
Parotid	T1534190	5 slides
Penis	T1534194	5 slides
Prostate	T1534201	5 slides
Rectum	T1534206	5 slides
Skin	T1534218	5 slides
Small Intestine	T1534226	5 slides
Small Intestine: Ileum	T1534227	5 slides
Small Intestine: Jejunum	T1534230	5 slides
Spinal Cord	T1534234	5 slides
Spleen	T1534246	5 slides
Stomach	T1534248	5 slides
Stomach: Cardia	T1534250	5 slides
Testis	T1534260	5 slides
Thymus	T1534264	5 slides
Thyroid	T1534265	5 slides
Tongue	T1534267	5 slides
Tonsil	T1534268	5 slides
Ureter	T1534273	5 slides
Uterus	T1534274	5 slides
Uterus: Cervix	T1534275	5 slides
Vagina	T1534283	5 slides

Frozen Tissue Sections

Hamster Frozen Tissue Sections (TfTAN)

Product Info.	Cat. #	Size
Brain	T1H34035	5 slides
Liver	T1H34149	5 slides
Lung	T1H34152	5 slides
Skeletal Muscle	T1H34171	5 slides

Mouse Frozen Tissue Sections (TfMAN)

Product Info.	Cat. #	Size
Adipose	T1334003	5 slides
Brain	T1334035	5 slides
Heart	T1334122	5 slides
Kidney	T1334142	5 slides
Liver	T1334149	5 slides
Lung	T1334152	5 slides
Skeletal Muscle	T1334171	5 slides
Pancreas	T1334188	5 slides
Placenta	T1334200	5 slides
Spleen	T1334246	5 slides
Testis	T1334260	5 slides
Embryo	T1334XVII	5 slides

Rabbit Frozen Tissue Sections (TfRAN)

Product Info.	Cat. #	Size
Brain	T1834035	5 slides
Colon	T1834090	5 slides
Ear	T1834104	5 slides
Heart	T1834122	5 slides
Kidney	T1834142	5 slides
Liver	T1834149	5 slides
Lung	T1834152	5 slides
Skeletal Muscle	T1834171	5 slides
Small Intestine	T1834226	5 slides
Stomach	T1834248	5 slides

Porcine Frozen Tissue Sections (TfPRAN)

Product Info.	Cat. #	Size
Brain	T1934035	5 slides
Colon	T1934090	5 slides
Heart	T1934122	5 slides
Kidney	T1934142	5 slides
Liver	T1934149	5 slides
Lung	T1934152	5 slides
Skeletal Muscle	T1934171	5 slides
Rectum	T1934206	5 slides
Small Intestine	T1934226	5 slides
Spleen	T1934246	5 slides
Stomach	T1934248	5 slides
Uterus: Cervix	T1934275	5 slides

Rat Frozen Tissue Sections (TfRAN)

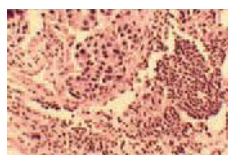
Product Info.	Cat. #	Size
Adipose	T1434003	5 slides
Brain	T1434035	5 slides
Heart	T1434122	5 slides
Kidney	T1434142	5 slides
Liver	T1434149	5 slides
Lung	T1434152	5 slides
Skeletal muscle	T1434171	5 slides
Pancreas	T1434188	5 slides
Placenta	T1434200	5 slides
Spleen	T1434246	5 slides
Testis	T1434260	5 slides

Matched Pair - Frozen Tissue Sections

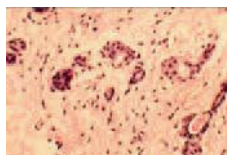
Tumor matched pair frozen tissue sections include: Primary Pair (PP), Primary and Metastasis Pair (PM). PP consists of products isolated from primary tumor and its adjacent normal tissue; PM consists of products from primary tumor and corresponding metastatic tumor. Products in each pair are prepared from the same donor. This product line is designed for identifying tumor-specific genes and tumor metastatic genes.

Human Tumor Tissue Frozen Slides Matched Pairs (TsHAT)

Product Description	Human Tumor Frozen Tissue Section Matched Pairs			
	Human primary tumor and normal matched pair (PP) TsHAT-PP Human primary tumor-PT, Normal tissue-PN 2 x 5 slides		Human primary tumor and metastatic tumor pair (PM) TsHAT-PM Human primary tumor-PT, Metastatic tumor-MT 2 x 5 slides	
Tissue	Cat. #	Part #	Cat. #	Part #
Breast	T6235086-PP	T6235086-PT T6235086-PN	T6235086-PM	T6235086-PT T6235086-MT
Colon	T6235090-PP	T6235090-PT T6235090-PN	T6235090-PM	T6235090-PT T6235090-MT
Kidney	T6235142-PP	T6235142-PT T6235142-PN	T6235142-PM	T6235142-PT T6235142-MT
Liver	T6235149-PP	T6235149-PT T6235149-PN	T6235149-PM	T6235149-PT T6235149-MT
Lung	T6235152-PP	T6235152-PT T6235152-PN	T6235152-PM	T6235152-PT T6235152-MT
Rectum	T6235206-PP	T6235206-PT T6235206-PN	T6235206-PM	T6235206-PT T6235206-MT
Stomach	T6235248-PP	T6235248-PT T6235248-PN	T6235248-PM	T6235248-PT T6235248-MT



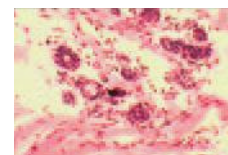
A



B



C



D

Fig. 4.7. 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

Paraffin Tissue Arrays

Introduction

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

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
- Tumor/adjacent normal tissues on the same slide
- 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, and animal tissues within each array

Applications

- High throughput screening via Tissue Array feature
- 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

Description

Tissue arrays are manufactured using high-quality tissues. The tissues are immediately fixed in formalin after being excised, and then identified by pathologists. Preparation of up to 150 different tissues are arrayed on a modified glass slide with proprietary technologies. Each section is approximately 5 µm thick. Quality of tissue arrays are verified by H.E. staining, immunostaining and in situ hybridization with proliferating cellular β-actin antibody and P53 gene probe, respectively, ensure the quality of tissue arrays. AMSBIO's tissue array is an ideal product for rapid cellular localization of RNA and protein expression.

Content: 2 or 5 arrays per package

Storage Conditions: Store Tissue Array at room temperature, away from light

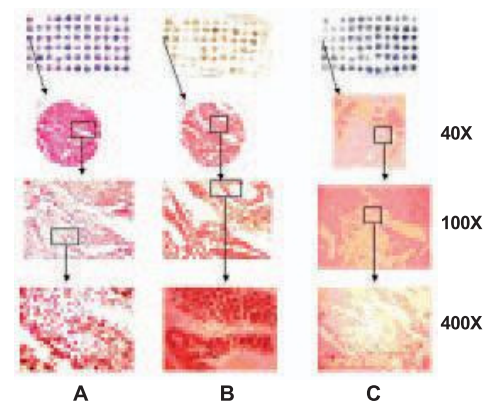


Fig 4.8. Image of Colon Tumor Tissue Array (Cat No. T8235722)

A. H.E. Stained Image

B. P53 Antibody Immunostained Image

C. P53 Non-radioactive Probe In situ Hybridized Image

FDA Standard Human Tissue Array (TeHANT)

This FDA standard tissue array is suitable for meeting US FDA requirements for IHC (Immunohistochemistry) and IVD (In vitro Diagnostic Devices) certification and also European CE Mark. This tissue array has two slides which contain 30 different human normal tissue types and 3 donors per tissue type, and 41 the most popular human tumor tissue samples.

Product Info.	Cat. #	Size
FDA Standard Tissue Array	T8234700-1	2 slides
FDA Standard Tissue Array	T8234700-2	4 slides

Human Adult Normal Tissue Array (TeHAN-A)

Human adult normal tissue arrays (TeHAN) are designed for rapidly screening genes or proteins of interest in extensive panels of different types of tissues. There are 12 to 30 different tissues arrayed in duplicates on a single positively charged glass slide.

Product	Cat. #	Size
Human Adult Normal Tissue Array	T8234708-2	2 slides
32 different tissues in duplicates	T8234708-5	5 slides
Human Adult Normal Tissue Array		
12 types of human tissues in duplicates,		
designed as universal control for >90% routine IHC markers	Z7020083	5 slides

Human Adult and Fetal Normal Tissue Array (TeHAFN-A)

Human adult and fetal normal tissue array (TeHAFN) is designed for rapidly screening genes or proteins of interest in extensive panels of different types of tissues. There are 30 different tissues arrayed in duplicates on a single positively charged glass slide. Each array contains human adult placenta tissue as a positive control and a paraffin blank as a negative control.

Product	Cat. #	Size
High Throughput Tissue Array from Human Adult and Fetal Normal Tissue	T8234709-2	2 slides
64 Specimens Tissue Array II (TeHAFN-A-II)	T8234709-5	5 slides

Paraffin Tissue Arrays

Human Fetal Normal Tissues Arrays (TeHFN-A)

amsbio's human fetal normal tissue arrays (TeHAT) is designed for rapidly screening genes or proteins of your interest in various fetal tissues, which include adrenal, bladder, bone, brain, eye, esophagus, heart, kidney, liver, lung, and etc. 50 to 81 tissues are arrayed on positively charged glass slides.

Cat. #	Product Name	Description	Spots	Size
Z5070020	Human Fetal Normal Tissue Array I	18 organs from 54 different donors, 3 donors for each organ	54	5 slides
Z5070021	Human Fetal Normal Tissue Array II	26 different organs, I	78	5 slides
Z5070022	Human Fetal Normal Tissue Array III	26 different organs, II	78	5 slides
Z5070023	Human Fetal Normal Tissue Array IV	15 different organs.	50	5 slides

To see details of the tissue sources of above tissue arrays, please contact your local office

Multiple Species Paraffin Tissue Array

Multiple Species Paraffin Tissue Array is designed for testing the species reactivity of antibodies. This array can bring very important information of antibodies in immunohistochemistry studies. The same type of tissues from 15 different species, including human, mouse, rat, Rhesus monkey, Cynomolgus monkey, rabbit, guinea pig, goat, sheep, hamster, chicken, bovine, horse, dog, and porcine, are arrayed on positively charged glass slides. The Multiple Species Paraffin tissue array can also enable you to study expression of genes or proteins of interest among different animals.

Total RNA and cDNA from those tissues may also be available upon request.

Cat. #	Product Name	Description	Spots	Size
T8134035-2	Multiple Species Brain	Brain tissues from 15 different species, including human, mouse, rat,	15	2 slides
T8134035-5	Paraffin Tissue Array	Rhesus monkey, Cynomolgus monkey, rabbit, guinea pig, goat, sheep, hamster, chicken, bovine, horse, dog, and porcine	15	5 slides
T8134149-2	Multiple Species Liver	Liver tissues from 15 different species, including human, mouse, rat,	15	2 slides
T8134149-5	Paraffin Tissue Array	Rhesus monkey, Cynomolgus monkey, rabbit, guinea pig, goat, sheep, hamster, chicken, bovine, horse, dog, and porcine	15	5 slides

Human Multiple Tumor Tissue Arrays (TeHAT)

amsbio's human multiple tumor high throughput tissue array (TeHAT) is designed for rapidly screening genes or proteins of your interest in various tumor types. Some tissue arrays have either corresponding normal or adjacent normal tissues as controls. Tissues are arrayed on positively charged glass slides. Tumor diagnosis, tumor stage (or TNM), tumor size, tumor differentiation, and tumor history are provided.

Human Tumor/Normal Tissue Array (TeHAT-A-I)

15 pairs of tumors and their corresponding normal tissues, together with positive and negative controls are spotted in duplicate. The arrangement of the 64 specimens is described in the table below.

Product	1 and 2		3 and 4		5 and 6		7 and 8		9 and 10		11 and 12		13 and 14		15 and 16	
High Throughput Tissue Array from Human Tumor Tissue																
64 specimens Tissue Array (TeHAT-A-I)																
	Positive Control	Negative Control	Bladder Tumor	Normal Bladder	Esophagus Tumor	Normal Esophagus	Brain Tumor	Normal Brain	Breast Tumor	Normal Breast	Liver Tumor	Normal Liver	Small intestine Tumor	Normal Small intestine	Stomach Tumor	Normal Stomach
	Colon Tumor	Normal Colon	Rectum Tumor	Normal Rectum	Skin Tumor	Normal Skin	Thyroid Tumor	Normal Thyroid	Uterus Tumor	Normal Uterus						

* If a certain type of tumor is unavailable, other similar types of tumor may be substituted.

Human Tumor/Normal Tissue Array (TeHAT-A-II)

47 different tumors and their corresponding normal tissues, together with positive and negative controls are spotted on one slide.

To receive details of the tissue sources, please email: info@amsbio.com



Fig. 4.9. H.E. stained image of tumor/normal tissue array (Cat. # T8235713)

Product	Cat. #	Size
High Throughput Tissue Array From Human Tumor Tissue	T8235713-2	2 slides
96 specimens Tissue Array (TeHAT-A-II)	T8235713-5	5 slides

Human Tumor/Normal Tissue Array (TeHATN)

amsbio's human tumor and normal tissue array (TeHATN) is designed for rapidly screening genes or proteins of your interest in various tumor types. 58 tissues are arrayed on positively charged glass slides. Each array contains human adult normal placenta as a positive control and a paraffin blank as a negative control. Normal and tumor diagnosis, tumor stage, tumor size, tumor differentiation, and tumor history are provided.

Product Info.	Cat. #	Size
Breast Tumor and Normal Tissue Array – 60 spots: Duplicated spots from breast tumor tissues (25 donors) and breast normal tissues (8 donors)	T8235731-2	2 slides
Lung Tumor and Normal Tissue Array – 60 spots: Duplicated spots from lung tumor tissues (25 donors) and lung normal tissues (8 donors)	T8235731-5	5 slides
	T8235732-2	2 slides
	T8235732-5	5 slides

To see details of the tissue sources of above tissue arrays, please call us or email info@amsbio.com

Paraffin Tissue Arrays

Human Multiple Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
T8235714d-2	Multiple Tumor Tissue Array	Ovary, Bladder, Breast, Kidney, Uterus, and Lung tumors,	66	2 slides
T8235714d-5	Multiple Tumor Tissue Array	plus 12 tumor/normal pairs	66	5 slides
T8235715d-2	Multiple Tumor Tissue Array	Kidney, Colon, Esophagus, Liver, Rectum and Stomach tumors,	66	2 slides
T8235715d-5	Multiple Tumor Tissue Array	plus 12 tumor/normal pairs	66	5 slides
T8235716d-2	Multiple Tumor Tissue Array	Bladder, Colon, Kidney, Lung, Stomach, and Uterus tumors,	66	2 slides
T8235716d-5	Multiple Tumor Tissue Array	plus 12 tumor/normal pairs	66	5 slides
Z7020038	Multiple Tumor Tissue Array	24 duplicated cases of gastrointestinal stroma tumor with various grades and stages	48	5 slides
Z7020079	Multiple Tumor Tissue Array	7 different normal tissues and 5 major tumor types in duplicates for IHC antibody and ISH probe optimization and initial screening	24	5 slides
Z7020080	Multiple Tumor Tissue Array	12 major types of cancer paired with adjacent normal tissues	25	5 slides
Z7020081	Multiple Tumor Tissue Array	15 major types tumors. Most types have duplicates from different patients with corresponding normal tissues as controls	39	5 slides
Z7020082	Multiple Tumor Tissue Array	40 types of tumors. Most of them have duplicates or triplicates from different individuals with corresponding normal tissues as controls	95	5 slides

Human Bladder Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020105	Bladder Tumor Tissue Array	12 cases of bladder tumor/adjacent normal pairs	24	5 slides
Z7020106	Bladder Tumor Tissue Array	66 cores including bladder cancers of various grades and stages (29 cases) and uninvolved bladder tissues (4 cases) in duplicates	66	5 slides

Human Brain Tumor Tissue Array

Cat. #	Product Name	Description	Spots	Size
Z5070003	Brain Tumor Tissue Array	Glioma (Astrocytoma, medulloblastoma, cellular ependymoma, glioblastoma) with normal tissue controls	63	5 slides
Z5070004	Brain Tumor Tissue Array	Glioma (Astrocytoma, medulloblastoma, desmoplastic medulloblastoma, glioblastoma) with normal tissue controls	63	5 slides
Z5070005	Brain Tumor Tissue Array	Glioma (Glioblastoma, grade IV) with normal tissue controls I	63	5 slides
Z5070006	Brain Tumor Tissue Array	Glioma (Glioblastoma, grade IV) with normal tissue controls II	63	5 slides

Human Breast Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
T8235721-2	Breast Tumor Tissue Array	64 Different Breast tumors. Plus positive control and negative control	66	2 slides
T8235721-5	Breast Tumor Tissue Array	64 Different Breast tumors. Plus positive control and negative control	66	5 slides
Z5070018	Breast Tumor Tissue Array	Infiltrating duct carcinoma with normal tissue controls	63	5 slides
Z5070019	Breast Tumor Tissue Array	Infiltrating duct, atypical medullary, simple, scirrhous carcinoma	63	5 slides
Z7020004	Breast Tumor Tissue Array	duplicated 70 cases covering all the common types of breast cancer and 5 cases of normal and other non-malignant breast tissues I	150	5 slides
Z7020005	Breast Tumor Tissue Array	Duplicated 70 cases covering all the common types of breast cancer and 5 cases of normal and other non-malignant breast tissues II	150	5 slides
Z7020007	Breast Tumor Tissue Array	16 cases of breast cancer, each in duplicates, paired with adjacent normal tissues	48	5 slides
Z7020008	Breast Tumor Tissue Array	Duplicated 36 cases covering all the common types of breast cancer and 12 cases of normal and other non-malignant breast tissues I	96	5 slides
Z7020009	Breast Tumor Tissue Array	Duplicated 36 cases covering all the common types of breast cancer and 12 cases of normal and other non-malignant breast tissues II	96	5 slides
Z7020010	Breast Tumor Tissue Array	6 types, 18 cases of normal, reactive and neoplastic conditions of the breast	18	5 slides

Human Colon Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
T8235722-2	Colon Tumor Tissue Array	64 Different Colon tumors. Plus positive control and negative control	66	2 slides
T8235722-5	Colon Tumor Tissue Array	64 Different Colon tumors. Plus positive control and negative control	66	5 slides
T8235790d-2	Colon Tumor Tissue Array	29 colon tumor/adjacent normal pairs.	60	2 slides
T8235790d-5	Colon Tumor Tissue Array	Plus positive control and negative control	60	5 slides
Z5070015	Colon Tumor Tissue Array	Adenocarcinoma (Grade I) with normal tissue controls	63	5 slides
Z5070016	Colon Tumor Tissue Array	Adenocarcinoma (Grade II) with normal tissue controls	63	5 slides
Z5070017	Colon Tumor Tissue Array	Adenocarcinoma (Grade III) with normal tissue controls	63	5 slides
Z7020032	Colon Tumor Tissue Array	Duplicated 70 cases covering all the common types of colon cancer and 5 cases of normal and other non-malignant colon tissues I	150	5 slides
Z7020033	Colon Tumor Tissue Array	Duplicated 70 cases covering all the common types of colon cancer and 5 cases of normal and other non-malignant colon tissues II	150	5 slides
Z7020035	Colon Tumor Tissue Array	16 cases of colon cancer, each in duplicates, paired with adjacent normal tissues.	48	5 slides
Z7020036	Colon Tumor Tissue Array	Duplicated 36 cases covering all the common types of colon cancer and 12 cases of normal and other non-malignant colon tissues II	96	5 slides
Z7020037	Colon Tumor Tissue Array	Duplicated 36 cases covering all the common types of colon cancer and 12 cases of normal and other non-malignant colon tissues I	96	5 slides

Paraffin Tissue Arrays

Human Diseased Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020011	Diseased Tissue Array	Cardiovascular Disease - 23 cases of normal, reactive and neoplastic cardiovascular conditions. Designed for blood vessel or endothelial cell related studies.	23	5 slides
Z7020020	Diseased Tissue Array	Digestive System Disease - 38 cases of normal, inflammatory and tumor tissues from the digestive tract and glands	38	5 slides

Human Esophagus Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020026	Esophagus Tumor Tissue Array	70 cases of esophageal cancers of different grades and stages, and 5 cases of normal and other non-malignant esophageal tissues.	150	5 slides
Z7020027	Esophagus Tumor Tissue Array	12 cases of esophageal cancer, each in duplicates, paired with adjacent normal tissues	24	5 slides
Z7020029	Esophagus Tumor Tissue Array	Duplicated 36 cases of esophageal cancer and 12 cases of normal and other non-malignant esophageal tissues.	96	5 slides
Z7020030	Esophagus Tumor Tissue Array	48 cases of normal, inflammatory, and cancerous (different grades & stages) tissues of the esophagus in duplicates	6	5 slides

Human Head and Neck Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020050	Head and Neck Tumor Tissue Array	18 cases of inflammatory and tumor tissues of the neck, oransopharynx, larynx and salivary glands	18	5 slides
Z7020051	Head and Neck Tumor Tissue Array	48 cases of inflammatory, benign and malignant tumor tissues of the neck, oransopharynx, larynx and salivary glands	96	5 slides

Human Kidney Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z5070012	Kidney Tumor Tissue Array	Kidney carcinoma (Clear cell, grandular cell, transitional cell, nephroblastoma) with normal tissue controls	72	5 slides
Z7020052	Kidney Tumor Tissue Array	Duplicated 70 cases covering all the common types of kidney cancer and 5 cases of normal and other non-malignant kidney tissues.	150	5 slides
Z7020053	Kidney Tumor Tissue Array	12 cases of kidney cancer paired with adjacent normal tissues	24	5 slides
Z7020054	Kidney Tumor Tissue Array	Duplicated 36 cases covering all the common types of kidney cancer and 12 cases of normal and other non-malignant kidney tissues.	96	5 slides
Z7020055	Kidney Tumor Tissue Array	Duplicated 48 cases of uninvolved and cancerous tissues of kidneys	96	5 slides

Human Liver Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020056	Liver Tumor Tissue Array	Duplicated 70 cases covering all the common types of liver cancer and 5 cases of normal and other non-malignant liver tissues I	150	5 slides
Z7020057	Liver Tumor Tissue Array	Duplicated 70 cases covering all the common types of liver cancer and 5 cases of normal and other non-malignant liver tissues II	150	5 slides
Z7020059	Liver Tumor Tissue Array	16 cases of liver cancer, each in duplicates, paired with adjacent normal tissues	48	5 slides
Z7020060	Liver Tumor Tissue Array	Duplicated 36 cases covering all the common types of liver cancer and 12 cases of normal and other non-malignant liver tissues.	96	5 slides
Z7020061	Liver Tumor Tissue Array	Duplicated 48 cases of uninvolved and cancerous tissues of livers	96	5 slides

Human Lung Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
T8235724-2	Lung Tumor Tissue Array	64 Different Lung tumors. Plus positive control and negative control	66	2 slides
T8235724-5	Lung Tumor Tissue Array	64 Different Lung tumors. Plus positive control and negative control	66	5 slides
Z5070009	Lung Tumor Tissue Array	Adenocarcinoma, most grade II with normal tissue controls	63	5 slides
Z5070010	Lung Tumor Tissue Array	Adenocarcinoma, most grade III with normal tissue controls	63	5 slides
Z7020062	Lung Tumor Tissue Array	Duplicated 70 cases covering all the common types of lung cancer and 5 cases of normal and other non-malignant lung tissues I	150	5 slides
Z7020063	Lung Tumor Tissue Array	Duplicated 70 cases covering all the common types of lung cancer and 5 cases of normal and other non-malignant lung tissues II	150	5 slides
Z7020065	Lung Tumor Tissue Array	16 cases covering all the common types of lung cancer paired with adjacent normal tissues	48	5 slides
Z7020066	Lung Tumor Tissue Array	Duplicated 36 cases covering all the common types of lung cancer and 12 cases of normal and other non-malignant lung tissues I	96	5 slides
Z7020067	Lung Tumor Tissue Array	36 cases in duplicates covering all the common types of lung cancer and 12 cases of normal and other non-malignant lung tissues II	96	5 slides
Z7020068	Lung Tumor Tissue Array	7 types, 15 cases of normal, inflammatory and tumor tissues of lungs	15	5 slides
Z7020069	Lung Tumor Tissue Array	16 cases covering all the common types of lung cancer paired with adjacent normal tissues	48	5 slides

Paraffin Tissue Arrays

Human Lymphoma Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020070	Lymphoma Tissue Array	70 cases of various types of nodal and extranodal lymphoma all in duplicates together with 5 cases of non-malignant lymphoid tissues	150	5 slides
Z7020072	Lymphoma Tissue Array	39 cases of various types of nodal and extranodal lymphoma	40	5 slides
Z7020071	Lymphoma Tissue Array	5 types of 14 cases of various lymphomas from 7 nodal and extranodal sites.	18	5 slides

Human Metastatic Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020073	Metastatic Tumor Tissue Array	18 cases of metastatic cancers from 4 anatomic sites	18	5 slides
Z7020074	Metastatic Tumor Tissue Array	48 cases of metastatic cancers from 8 anatomic sites	96	5 slides

Human Ovary Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
T8235725-2	Ovary Tumor Tissue Array	64 Different Ovary tumors. Plus positive control and negative control	66	2 slides
T8235725-5	Ovary Tumor Tissue Array	64 Different Ovary tumors. Plus positive control and negative control	66	5 slides
Z7020086	Ovary Tumor Tissue Array	Duplicated 70 cases covering all the common types of ovarian cancer and 5 cases of normal and other non-malignant ovarian tissues.	150	5 slides
Z7020087	Ovary Tumor Tissue Array	12 cases of ovary cancer paired with adjacent normal tissues	24	5 slides
Z7020088	Ovary Tumor Tissue Array	Duplicated 36 cases covering all the common types of ovarian cancer and 12 cases of normal and other non-malignant ovarian tissues.	96	5 slides
Z7020089	Ovary Tumor Tissue Array	Duplicated 48 cases of uninvolved and cancerous tissues of ovary	96	5 slides

Human Pancreas Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z5070013	Pancreas Tumor Tissue Array	Pancreatic carcinoma (Duct adenocarcinoma, islet cell carcinoma, mucinous carcinoma) with normal controls I	63	5 slides
Z5070014	Pancreas Tumor Tissue Array	Pancreatic carcinoma (Duct adenocarcinoma, islet cell carcinoma, mucinous carcinoma) with normal controls II	63	5 slides
Z7020090	Pancreas Tumor Tissue Array	20 cases of pancreatic cancers and 4 cases of normal and non-malignant pancreatic tissues.	48	5 slides

Human Prostate Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z5070001	Prostate Tumor Tissue Array	Leiomyosarcoma, adenocarcinoma, small acinar carcinoma with prostate hyperplasia	63	5 slides
Z5070002	Prostate Tumor Tissue Array	Adenocarcinoma (grade I ~ III) with hyperplasia tissue controls.	63	5 slides
Z7020091	Prostate Tumor Tissue Array	17 cases of prostate tumors and 7 cases of normal and reactive prostate tissues.	48	5 slides

Human Rectum Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
T8235723-2	Rectum Tumor Tissue Array	Different Rectum tumors. Plus positive control and negative control	66	2 slides
T8235723-5	Rectum Tumor Tissue Array	Different Rectum tumors. Plus positive control and negative control	66	5 slides
Z7020039	Rectum Tumor Tissue Array	Duplicated 70 cases covering all the common types of rectal cancer and 5 cases of normal and other non-malignant rectal tissues I	150	5 slides
Z7020040	Rectum Tumor Tissue Array	Duplicated 70 cases covering all the common types of rectal cancer and 5 cases of normal and other non-malignant rectal tissues II	150	5 slides
Z7020042	Rectum Tumor Tissue Array	16 cases of rectum cancer, each in duplicates, paired with adjacent normal tissues	48	5 slides
Z7020043	Rectum Tumor Tissue Array	Duplicated 36 cases covering all the common types of rectal cancer and 12 cases of normal and other non-malignant rectal tissues.	96	5 slides
Z7020044	Rectum Tumor Tissue Array	48 cases of normal, reactive and cancerous (different grades & stages) tissues of the rectum in duplicates	96	5 slides

Human Skin Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z5070007	Skin Tumor Tissue Array	Skin malignant tumors (squamous carcinoma, adenocarcinoma, basal cell carcinoma, sarcoma, melanoma)	78	5 slides
Z5070008	Skin Tumor Tissue Array	Skin Malignant melanoma	81	5 slides
Z7020093	Skin Tumor Tissue Array	36 duplicated cases of skin tumors and 12 cases of normal and other non-malignant skin tissues.	96	5 slides

Human Testis Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020096	Testis Tumor Tissue Array	16 cases of testis tumors and 8 cases of non-tumor testis tissues.	48	5 slides

Paraffin Tissue Arrays

Human Stomach Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020031	Stomach Tumor Tissue Array	16 cases of gastric cancer, each in duplicates, paired with corresponding uninvolved tissues from the same patients	48	5 slides
Z7020045	Stomach Tumor Tissue Array	Duplicated 70 cases covering all the common types of stomach cancer and 5 cases of normal and other non-malignant stomach tissues I	150	5 slides
Z7020046	Stomach Tumor Tissue Array	Duplicated 36 cases covering all the common types of stomach cancer and 5 cases of normal and other non-malignant stomach tissues II	150	5 slides
Z7020048	Stomach Tumor Tissue Array	Duplicated 36 cases covering all the common types of stomach cancer and 12 cases of normal and other non-malignant stomach tissues I	96	5 slides
Z7020049	Stomach Tumor Tissue Array	36 cases of gastric cancers of various grades and stages, and 12 cases of normal and inflammatory stomach II	96	5 slides

Human Thyroid Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020097	Thyroid Tumor Tissue Array	12 cases of thyroid cancer paired with corresponding uninvolved tissues from the same patients	24	5 slides
Z7020098	Thyroid Tumor Tissue Array	Duplicated 48 cases of uninvolved and cancerous tissues of thyroid	96	5 slides
Z7020099	Thyroid Tumor Tissue Array	6 types, 18 cases of normal, inflammatory and neoplastic conditions of thyroid	18	5 slides

Human Uterus Cervix Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020014	Uterus Cervix Tumor Tissue Array	12 cases of cervical cancer paired with adjacent normal tissues	24	5 slides
Z7020013	Uterus Cervix Tumor Tissue Array	Duplicated 70 cases of cervical cancer and 5 cases of normal and other non-malignant cervical tissues.	150	5 slides
Z7020015	Uterus Cervix Tumor Tissue Array	Duplicated 36 cases of cervical cancer and 12 cases of normal and other non-malignant cervical tissues.	96	5 slides
Z7020016	Uterus Cervix Tumor Tissue Array	Duplicated 48 cases of uninvolved and cancerous tissues of cervix	96	5 slides

Human Uterus Endometrium Tumor Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020022	Endometrium Tumor Tissue Array	Duplicated 70 cases of endometrial cancer and 5 cases of normal and other non-malignant endometrial tissues.	150	5 slides
Z7020023	Endometrium Tumor Tissue Array	12 cases of endometrial cancer paired with adjacent normal tissues	24	5 slides
Z7020024	Endometrium Tumor Tissue Array	Duplicated 36 cases of endometrial cancer and 12 cases of normal and other non-malignant endometrial tissues.	96	5 slides
Z7020025	Endometrium Tumor Tissue Array	Duplicated 48 cases of uninvolved and cancerous tissues of endometrium tissue	96	5 slides

Monkey Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020003	Monkey Tissue Array	22 types of cyno monkey normal tissues covering all major organs. All the tissues were originated from a single cyno monkey	22	5 slides

Mouse Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020001	Mouse Tissue Array	18 types of mouse normal tissues covering all major organs. Each type has triplicates from 3 mice	54	5 slides
Z5070024	Mouse Tissue Array	Brain, heart, kidney, liver, lung, muscle, spleen and stomach, each tissue from 10 female and 10 male	160	5 slides

Rat Tissue Arrays

Cat. #	Product Name	Description	Spots	Size
Z7020002	Rat Tissue Array	22 types of rat normal tissues covering all major organs. Each type has triplicates from 3 rats	54	5 slides
Z5070025	Rat Tissue Array	Brain, heart, kidney, liver, lung, muscle, spleen and stomach, each tissue from 10 female and 10 male	160	5 slides

Paraffin Tissue Panels

Introduction

amsbio's 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.

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
- Tumor/adjacent normal tissues on the same slide
- 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

- High throughput screening via Tissue Array feature
- 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

Description

Tissue panels are manufactured using high-quality tissues. The tissues are immediately fixed in formalin after being excised, and then identified by a board-licensed pathologist. 5 to 8 different tissues are mounted on a modified glass slide after preparation with proprietary techniques. Each section is approximately 5 µm thick. H.E. staining, immunostaining, and in situ hybridization with certain antibody and gene probe, respectively, ensure the quality of tissue panels. AMSBIO's tissue panel is an ideal product for rapid cellular localization of RNA and protein expression.

Content: 5 slides per package

Storage Conditions: Store Tissue Panel at room temperature for short term, at 4°C for long term, away from light.

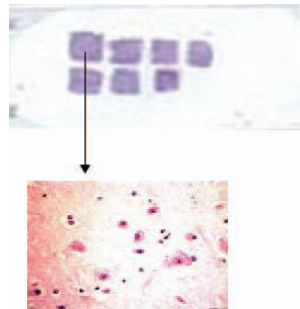


Fig. 4.10. Image of H.E. Stained Normal Brain Paraffin Tissue Panel Cat# T8234444.

First row from left to right: frontal lobe, temporal lobe, parietal lobe, and amygdala.

Second row from left to right: Precentral gyrus, postcentral gyrus, and occipital lobe

Human Adult Normal Multiple-Tissue Panels (TeHAN)

amsbio's human adult normal multiple tissue panels are designed for studying tissue specific cellular localization of genes or proteins of interest in different human normal tissues. Tissues arrayed on positively charged glass slides are organized either by organs (major organ multiple tissue panels), or by integrated major systems (organ systems multiple tissue panels). Documentation of tissues' clinical histories is available upon request. Identical format total RNA Northern Blots are available, and cDNA from those tissues may also be available for PCR detection.

Major Organs Multiple Tissue Panels (TeHAN)

Each slide contains sections from 8 different human adult normal tissues. The tissue combinations arranged on the slides are identical to those found on the Total RNA Human Adult Normal Tissue Northern Blot.

Product Info.	TeHAN-m-I	TeHAN-m-II	TeHAN-m-III
Cat. #	T8234431	T8234432	T8234433
Size	5/box	5/box	5/box

	Tissues Source		
1	Heart	Esophagus	Tonsil
2	Brain	Stomach	Thymus
3	Kidney	Small intestine	Appendix
4	Liver	Colon	Lymph node
5	Lung	Uterus	Gallbladder
6	Pancreas	Placenta	Prostate
7	Spleen	Bladder	Testis
8	Skeletal Muscle	Adipose	Ovary

Organ Systems Multiple Tissue Panels (TeHAN)

Each slide contains sections from 8 different human adult normal tissues, grouped by related organs.

Product Info.	TeHAN-m-IV Neural	TeHAN-m-V Cardiovascular	TeHAN-m-VI Urinary & Respiratory	TeHAN-m-VII Digestive	TeHAN-m-VIII Reproductive	TeHAN-m-IX Endocrine	TeHAN-m-X Hematal & Immune
Cat. #	T8234601	T8234602	T8234603	T8234604	T8234605	T8234606	T8234607
Size	5/box	5/box	5/box	5/box	5/box	5/box	5/box

	Tissue Source						
1	Medulla oblongata	Artery	Throat	Liver	Testis	Adrenal	Appendix
2	Corpus callosum	Vein	Trachea	Gallbladder	Epididymis	Pancreas	Liver
3	Spinal cord	Interventricular septum	Bronchium	Pancreas	Ductus deferens	Testis	Kidney
4	Peripheral nerve	Pericardium	Alveolus	Parotid	Seminal vesicle	Ovary	Sternum
5	Cerebral cortex	Atrium	Kidney	Esophagus	Ovary	Thalamus	Lymph node
6	Mesencephalon	Ventricle	Ureter	Stomach	Fallopian tube	Liver	Tonsil
7	Cerebellum	Mitral valve	Bladder	Small intestine	Uterus	Thyroid	Thymus
8	Pons	Tricuspid valve	Prostate	Colon	Vagina	Thymus	Spleen

Paraffin Tissue Panels

Human Fetal Normal Multiple Tissue Panels (TeHFN)

AMSBIO's human fetal multiple tissue panels are designed for studying tissue specific cellular localization of genes or protein of your interest in different human fetal tissues. 8 different human fetal tissues are mounted on positively charged glass slides. Documentation of tissues' clinical histories is available upon request. RNA Northern Blots and cDNA from the same tissue may also be available.

Product Info.		TeHFN-m-I	TeHFN-m-II
Cat. #		T8244431	T8244615
Size		5/box	5/box
Tissues Source			
1		Lung	Testis
2		Pancreas	Ovary
3		Spleen	Adrenal
4		Skeletal muscle	Thyroid
5		Heart	Thymus
6		Brain	Spinal cord
7		Kidney	Spleen
8		Liver	Pancreas

Human Tumor Tissue Panel-Different Types of Tumor (TeHAT-DD)

Human multiple tissue panels with different types of tumors are designed for screening gene expression in multiple tumor tissues. Each slide contains 2 different tumors and their corresponding normal tissues plus placenta as an inter-panel control. A licensed pathologist issued a pathological diagnosis of each tumor based on examination of tissue sections. Documentation of tissues' clinical histories is available upon request. mRNA Northern blot and Western blot as well as total RNA Northern blot are available in identical formats.

Product Info.	TeHAT-DD-I5	TeHAT-DD-II5	TeHAT-DD-III5	TeHAT-DD-IV5	TeHAT-DD-V5	TeHAT-DD-VI5
Cat. #	T8235417	T8235418	T8235419	T8235420	T8235421	T8235422
Size	5/box	5/box	5/box	5/box	5/box	5/box
Tissue Source						
1	Colon tumor	Breast tumor	Kidney tumor	Bladder tumor	Liver tumor	Ovary tumor
2	Normal colon	Normal breast	Normal kidney	Normal bladder	Normal liver	Normal ovary
3	Rectum tumor	Uterus tumor	Lung tumor	Esophagus tumor	Stomach tumor	Uterus tumor
4	Normal rectum	Normal uterus	Normal lung	Normal esophagus	Normal stomach	Normal uterus
5	Placenta	Placenta	Placenta	Placenta	Placenta	Placenta

Human Tumor Tissue Panel-Different Types of Tumor (TeHAT-DD)

Product Info.	TeHAT-DD-I8	TeHAT-DD-II8	TeHAT-DD-III8	TeHAT-DD-IV8	TeHAT-DD-V8	TeHAT-DD-VI8	TeHAT-DD-VII8
Cat. #	T8235437	T8235438	T8235439	T8235440	T8235441	T8235442	T8235443
Size	5/box	5/box	5/box	5/box	5/box	5/box	5/box
Tissues Source							
1	Brain tumor	Esophagus tumor	Kidney tumor	Gallbladder tumor	Small intestine tumor	Breast tumor	Thyroid tumor
2	Normal brain	Normal esophagus	Normal kidney	Normal gallbladder	Normal small intestine	Normal breast	Normal thyroid
3	Kidney Tumor	Stomach Tumor	Oschea/ureter tumor	Esophagus tumor	Esophagus tumor	Uterus Tumor	Adrenal tumor
4	Normal kidney	Normal stomach	Normal oschea	Normal esophagus	Normal esophagus	Normal uterus	Normal adrenal
5	Liver Tumor	Colon Tumor	Bladder Tumor	Stomach tumor	Thymoma	Teratoma/fallopian tube tumor	Parotid tumor
6	Normal liver	Normal colon	Normal bladder	Normal stomach	Normal thymus	Normal fallopian tube	Normal parotid
7	Lung tumor	Rectum tumor	Stomach tumor	Lung tumor	Lung tumor	Ovary tumor	Lymphoma
8	Normal lung	Normal rectum	Normal stomach	Normal lung	Normal lung	Normal ovary	Normal lymph node

Alzheimer's Diseased Brain Tissue Panel (TeHAD-Alz)

Alzheimer's diseased brain tissue panels (TeHAD-Alz) are designed for rapidly screening Alzheimer's disease-specific genes or proteins in brain tissues. Tissues are arrayed on positively charged glass slides. Alzheimer's diseased brain tissues on TeHAD-Alz-I are selected based on functional regions, while those on TeHAD-Alz-II are selected based on anatomical regions. TeHAD-Alz-IV contains both functional and anatomical regions of Alzheimer's diseased brain tissues. Normal brain tissue panels are also available in the identical format as controls. TeHAD-Alz-III contains both Alzheimer's diseased brain tissues and normal brain tissues. Each panel contains 8 different tissue spots.

Product Info.		NtHAD-Az-III
Cat. #		T8236446Alz
Size		5/box
Price		\$449.00
Tissues on Tissue Panel		
1		Alzheimer's precentral gyrus
2		Normal precentral gyrus
3		Alzheimer's postcentral gyrus
4		Normal postcentral gyrus
5		Alzheimer's occipital lobe
6		Normal occipital lobe
7		Alzheimer's cerebellum
8		Normal cerebellum

Alzheimer's Diseased Tissue Panels				Normal Brain's Tissue Panels (control)		
Product Info.	TeHAD-Alz-I	TeHAD-Alz-II	TeHAD-Alz-IV	TeHAN-B-I	TeHAN-B-II	TeHAN-B-IV
Cat. #	T8236444Alz	T8236445Alz	T8236564Alz	T8234444	T8234445	T8234564
Size	5/box	5/box	5/box	5/box	5/box	5/box

Tissues on Tissue Panels:

1	Frontal lobe	Frontal lobe	Precentral gyrus	Frontal lobe	Frontal lobe	Precentral gyrus
2	Temporal lobe	Temporal lobe	Postcentral gyrus	Temporal lobe	Temporal lobe	Postcentral gyrus
3	Hippocampus	Parietal lobe	Frontal lobe	Hippocampus	Parietal lobe	Frontal lobe
4	Amygdala	Occipital lobe	Temporal lobe	Amygdala	Occipital lobe	Temporal lobe
5	Precentral gyrus	Pons	Parietal lobe	Precentral gyrus	Pons	Parietal lobe
6	Postcentral gyrus	Thalamus	Occipital Lobe	Postcentral gyrus	Thalamus	Occipital Lobe
7	Occipital Lobe	Corpus callosum	Cerebellum	Occipital Lobe	Corpus callosum	Cerebellum

Paraffin Tissue Panels

Human Tumor Tissue Panel-Same Type of Tumors (TeHAT-SD)

Human multiple tissue panels from the same type of tumors are designed for rapidly screening expression of tumor specific genes or proteins. Each panel contains the same tumor tissue type collected from three different donors along with a corresponding normal control tissue. Documentation of tissues' clinical histories may be available upon request. Human placenta tissue section is included in each panel as an inter-panel control for comparison between different tissue panels.

Product Info.	Cat. #	Size
TeHAT - breast tumor	T8235086	5/box
TeHAT - colon tumor	T8235090	5/box
TeHAT - esophagus tumor	T8235106	5/box
TeHAT - kidney tumor	T8235142	5/box
TeHAT - liver tumor	T8235149	5/box
TeHAT - lung tumor	T8235152	5/box
TeHAT - ovary tumor	T8235183	5/box
TeHAT - rectum tumor	T8235206	5/box
TeHAT - stomach tumor	T8235248	5/box
TeHAT - uterus tumor	T8235274	5/box

Mouse, Rat, and Monkey (Simian) Tissue Panel (TeMAN, TeRAN, and TeSAN)

AMSBIO's mouse, rat, and monkey normal multiple tissue panels are designed for studying tissue specific cellular localization of genes or proteins of interest in different mouse, rat, and monkey tissues. Tissues are arrayed on positively charged glass slides. Each panel contains 8 different tissue spots. Total RNA Northern Blots are available in the identical format, and cDNA from those tissues may also be available for PCR detection.

Product	Tissue Panel-I	Tissue Panel -II	Tissue Panel -III
Cat. #	T8334447 (Mouse)	T8334608 (Mouse)	T8334423 (Mouse)
Cat. #	T8434448 (Rat)	T8434608 (Rat)	T8434423 (Rat)
Cat. #	T8534448 (Monkey)		T8534423 (Monkey)
Size	5/box	5/box	5/box

amsbio offers custom designed Tissue Arrays. Please call your local office or email us at info@amsbio.com for more information about any special tissue types or combinations other than the ones shown in this catalog.

	Tissues Source		
1	Heart	Adipose	Heart
2	Brain	Stomach	Brain
3	Kidney	Small intestine	Kidney
4	Liver	Colon	Lung
5	Lung	Uterus	Spleen
6	Spleen	Placenta	Skeletal muscle
7	Skeletal muscle	Ovary	Small intestine
8	Adipose	Testis	Human placenta

Matched Pair - Paraffin Tissue Sections

Tumor matched pair paraffin tissue sections include: Primary Pair (PP), Primary and Metastasis Pair (PM). PP consists of products isolated from primary tumor and its adjacent normal tissue; PM consists of products from primary tumor and corresponding metastatic tumor. Products in each pair are prepared from the same donor. This product line is designed for identifying tumor-specific genes and tumor metastatic genes.

Human Tumor Tissue Slides Matched Pairs (TeHAT)

Product Description	Human Tumor Paraffin Tissue Section Matched Pairs			
	Human primary tumor and normal matched pair (PP) TeHAT-PP Human primary tumor-PT, Normal tissue-PN Size 2 x 5 slides		Human primary tumor and metastatic tumor pair (PM) TeHAT-PM Human primary tumor-PT, Metastatic tumor-MT Size 2 x 5 slides	
Tissue	Cat. #	Part #	Cat. #	Part #
Breast	T8235086-PP	T8235086-PT T8235086-PN	T8235086-PM	T8235086-PT T8235086-MT
Colon	T8235090-PP	T8235090-PT T8235090-PN	T8235090-PM	T8235090-PT T8235090-MT
Kidney	T8235142-PP	T8235142-PT T8235142-PN	T8235142-PM	T8235142-PT T8235142-MT
Liver	T8235149-PP	T8235149-PT T8235149-PN	T8235149-PM	T8235149-PT T8235149-MT
Lung	T8235152-PP	T8235152-PT T8235152-PN	T8235152-PM	T8235152-PT T8235152-MT
Rectum	T8235206-PP	T8235206-PT T8235206-PN	T8235206-PM	T8235206-PT T8235206-MT
Stomach	T8235248-PP	T8235248-PT T8235248-PN	T8235248-PM	T8235248-PT T8235248-MT

Paraffin Tissue Sections

Introduction

amsbio's Paraffin Tissue sections are ideal for rapidly identifying the cellular localization of RNA or protein. To make paraffin tissue sections, tissues are excised, immediately fixed by formalin, and then pathologically identified. A single paraffin-embedded tissue section with 5 μm thickness is mounted on a positively charged glass slide.

Features

- Tissue from a wide variety of difficult-to-obtain tissue sources
- Suitable for both immunohistochemistry and in situ hybridization
- Multiple tissues or a single tissue per slide
- Documentation of tissues' clinical histories 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, or in situ PCR
- Comparison of the locations of novel genes in different tissues
- Control slides for immunohistochemistry studies

Description

amsbio's paraffin tissue section line encompasses a large selection of slides of tissue sections that are well-suited for immunohistochemistry and in situ hybridization. It includes human adult and fetal tissues, human diseased and tumor tissues, mouse, rat, and monkey tissues. The paraffin tissue sections are approximately 5 μm thick. All tissues are diagnosed by licensed pathologists. Accurate documentation and clinical histories of the tissues can be supplied upon request.

Storage Conditions

Store paraffin tissue section slides at room temperature.

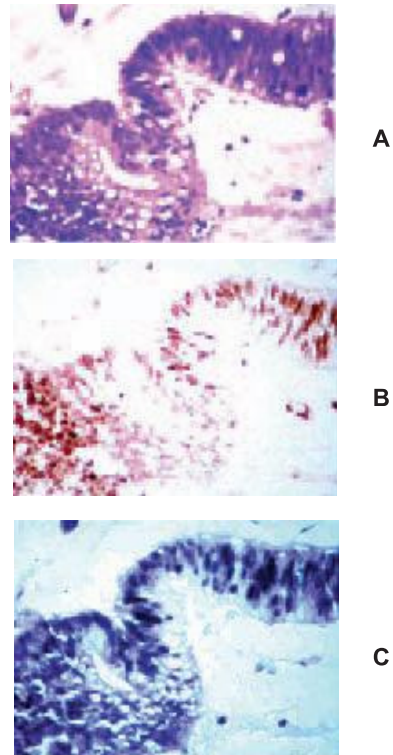


Fig. 4.11. In Situ Hybridization and Immunohistochemistry of P53 gene in human colon tumor tissue. Three serial paraffin embedded tissue sections were analyzed for P53 gene expression in human colon tumor tissue. It is shown that P53 mRNA and P53 protein are localized in the same area under 400x magnification.

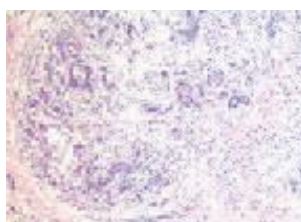
- A. H.E. stained image
 B. Image of immunohistochemistry
 C. Image of in situ hybridization



A



B



C



D



E



F

Fig. 4.12. HE Staining of Human Breast Tumor Tissue Sections.

The tissue sections were paraffin embedded, and selected from AMSBIO's Human Tissue Section Slides. Pictures were taken at 400X magnification.

- Panel A. Invasive Ductal Carcinoma;
 Panel B. Mucinous Carcinoma;
 Panel C. Invasive Lobular Carcinoma;
 Panel D. Fibroadenoma;
 Panel E. Medullary Carcinoma;
 Panel F. Intraductal Carcinoma

Paraffin Tissue Sections

Human Adult Normal Tissue Sections (TpHAN)

A single human adult normal tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in human normal tissues.

Product Info.	Cat. #	Size	Product Info.	Cat. #	Size
Adipose	T2234003	5 slides	Heart: Pulmonary Artery	T2234134	5 slides
Adrenal	T2234004	5 slides	Heart: Pulmonary Valve	T2234135	5 slides
Appendix	T2234006	5 slides	Heart: Ventricle (left)	T2234138	5 slides
Bladder	T2234010	5 slides	Heart: Ventricle (right)	T2234139	5 slides
Blood Vessel: Artery	T2234013	5 slides	Kidney	T2234142	5 slides
Blood Vessel: Brain Artery	T2234014	5 slides	Liver	T2234149	5 slides
Blood Vessel: Coronary Artery	T2234017	5 slides	Lung	T2234152	5 slides
Blood Vessel: Vein	T2234020	5 slides	Trachea	T2234160	5 slides
Brain	T2234035	5 slides	Lymph node	T2234161	5 slides
Brain: Cerebellar Peduncles	T2234038	5 slides	Submaxillary gland	T2234165	5 slides
Brain: Cerebellum	T2234039	5 slides	Diaphragm	T2234169	5 slides
Brain: Cerebellum (left)	T2234040	5 slides	Skeletal Muscle	T2234171	5 slides
Brain: Cerebellum (right)	T2234041	5 slides	Ovary	T2234183	5 slides
Brain: Cerebral Cortex	T2234042	5 slides	Pancreas	T2234188	5 slides
Brain: Cerebral Meninges	T2234043	5 slides	Parotid	T2234190	5 slides
Brain: Corpus Callosum	T2234045	5 slides	Penis	T2234194	5 slides
Brain: Corpora Mamillare	T2234047	5 slides	Placenta	T2234200	5 slides
Brain: Diencephalon	T2234049	5 slides	Prostate	T2234201	5 slides
Brain: Frontal Lobe	T2234051	5 slides	Rectum	T2234206	5 slides
Brain: Hippocampus	T2234052	5 slides	Skin	T2234218	5 slides
Brain: Insula	T2234055	5 slides	Small intestine	T2234226	5 slides
Brain: Medulla Oblongata	T2234057	5 slides	Spinal cord	T2234234	5 slides
Brain: Midbrain	T2234059	5 slides	Spleen	T2234246	5 slides
Brain: Occipital Lobe	T2234062	5 slides	Stomach	T2234248	5 slides
Brain: Parietal Lobe	T2234066	5 slides	Testis	T2234260	5 slides
Brain: Pons	T2234071	5 slides	Throat	T2234263	5 slides
Brain: Postcentral Gyrus	T2234072	5 slides	Tongue	T2234267	5 slides
Brain: Precentral Gyrus	T2234073	5 slides	Uterus	T2234274	5 slides
Brain: Temporal Lobe	T2234078	5 slides	Vagina	T2234283	5 slides
Brain: Thalamus	T2234079	5 slides	Brain: Amygdala	T2234036	5 slides
Breast	T2234086	5 slides	Brain: Basal Ganglia	T2234037	5 slides
Colon	T2234090	5 slides	Brain: Choroid Plexus	T2234044	5 slides
Epididymus	T2234105	5 slides	Brain: Olfactory (region)	T2234063	5 slides
Esophagus	T2234106	5 slides	Brain: Optic Nerve	T2234064	5 slides
Gallbladder	T2234118	5 slides	Brain: Pineal Gland	T2234067	5 slides
Heart	T2234122	5 slides	Brain: Pituitary	T2234068	5 slides
Heart: Aorta Valve	T2234123	5 slides	Brain: Tonsilla Cerebelli	T2234080	5 slides
Heart: Arcus Aortae	T2234124	5 slides	Brain: Tuberculum Cinereum	T2234081	5 slides
Heart: Atrium (left)	T2234126	5 slides	Brain: Vermis Cerebelli	T2234082	5 slides
Heart: Atrium (right)	T2234127	5 slides	Ductus deferens	T2234100	5 slides
Heart: Auricula (left)	T2234128	5 slides	Heart: Mitral Valve	T2234131	5 slides
Heart: Auricula (right)	T2234129	5 slides	Heart: Tricuspid Valve	T2234136	5 slides
Heart: Interventricular Septum	T2234130	5 slides	Parathyroid	T2234189	5 slides
Heart: Papilla Muscle	T2234132	5 slides	Eye: Retina	T2234110	5 slides
Heart: Pericardium	T2234133	5 slides			

Human Fetal Normal Tissue Sections (TpHFN)

A single human fetal normal tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in human fetal normal tissues.

Product Info.	Cat. #	Size	Price	Product Info.	Cat. #	Size
Adrenal	T2244004	5 slides	\$119.00	Trachea	T2244160	5 slides
Appendix	T2244006	5 slides	\$119.00	Diaphragm	T2244169	5 slides
Bladder	T2244010	5 slides	\$119.00	Skeletal Muscle	T2244171	5 slides
Brain	T2244035	5 slides	\$119.00	Ovary	T2244183	5 slides
Brain: Cerebellum (left)	T2244040	5 slides	\$119.00	Parotid	T2244190	5 slides
Brain: Cerebellum (right)	T2244041	5 slides	\$119.00	Prostate	T2244201	5 slides
Brain: Diencephalon	T2244049	5 slides	\$119.00	Rectum	T2244206	5 slides
Brain: Frontal Lobe	T2244051	5 slides	\$119.00	Skin	T2244218	5 slides
Brain: Occipital Lobe	T2244062	5 slides	\$119.00	Small intestine	T2244226	5 slides
Brain: Parietal Lobe	T2244066	5 slides	\$119.00	Spinal Cord	T2244234	5 slides
Brain: Brain Stem	T2244075	5 slides	\$119.00	Spleen	T2244246	5 slides
Brain: Temporal Lobe	T2244078	5 slides	\$119.00	Stomach	T2244248	5 slides
Colon	T2244090	5 slides	\$119.00	Throat	T2244263	5 slides
Duodenum	T2244101	5 slides	\$119.00	Thymus	T2244264	5 slides
Esophagus	T2244106	5 slides	\$119.00	Thyroid	T2244265	5 slides
Gallbladder	T2244118	5 slides	\$119.00	Tongue	T2244267	5 slides
Heart	T2244122	5 slides	\$119.00	Umbilical Cord	T2244272	5 slides
Kidney	T2244142	5 slides	\$119.00	Ureter	T2244273	5 slides
Liver	T2244149	5 slides	\$119.00	Uterus	T2244274	5 slides
Lung	T2244152	5 slides	\$119.00	Pancreas	T2244188	5 slides
				Testis	T2244260	5 slides

Paraffin Tissue Sections

Tumor Tissue Sections (TpHAT)

Human Tumor Single Tissue Sections are designed for rapidly identifying cellular localization of RNA or protein in tumor tissues. Each slide contains tissue from a single human tumor. Documentation of tissues' clinical histories may be available upon request.

Tissue Source	Cat. #	Size	Product Info.	Cat. #	Size
Abdominal Tumor			Gallbladder Tumor		
Cysto Teratocarcinoid	T2235001	5 slides	Moderately Differentiated	T2235118	5 slides
-Malignant Mesothelioma	T2235001-1	5 slides	Adenocarcinoma	T2235118-1	5 slides
Neurofibromatosis	T2235001-6	5 slides	Poorly Differentiated Adenocarcinoma	T2235118-2	5 slides
	T2235001-7	5 slides	Well Differentiated Adenocarcinoma,	T2235118-3	5 slides
Adipose Tumor	T2235003	5 slides	Kidney Tumor	T2235142	5 slides
Lipoma	T2235003-1	5 slides	Clear Cell Carcinoma	T2235142-2	5 slides
			Papillary Renal Cell Carcinoma	T2235142-4	5 slides
Adrenal Tumor	T2235004	5 slides	Renal Cell Carcinoma	T2235142-5	5 slides
Adenoma	T2235004-1	5 slides	Kidney Tumor-Wilms' Tumor	T2235142-7	5 slides
Adrenal Pheochromocytoma	T2235004-2	5 slides			
Myelolipoma	T2235004-3	5 slides	Liver Tumor	T2235149	5 slides
			Liver Tumor-Adenocarcinoma	T2235149-1	5 slides
Appendix Tumor	T2235006	5 slides	Liver Tumor-Cholangiocellular Carcinoma	T2235149-2	5 slides
Adenocarcinoma	T2235006-1	5 slides	Liver Tumor-Hepatoblastoma		
			(epithelial type)	T2235149-3	5 slides
Bladder Tumor	T2235010	5 slides	Hepatocellular Carcinoma	T2235149-4	5 slides
Papillary Transitional Cell Carcinoma	T2235010-1	5 slides	Liver Tumor-Nodulous		
			Hepatocellular Carcinoma	T2235149-5	5 slides
Angioma	T2235011	5 slides	Lung Tumor	T2235152	5 slides
Cavernous Hemangioma	T2235011-1	5 slides	Adenocarcinoma	T2235152-1	5 slides
Glomus Tumor	T2235011-2	5 slides	Lung Tumor-Large Cell Carcinoma	T2235152-6	5 slides
Hemangioma	T2235011-3	5 slides	Lung Tumor-Neuroendocrine Carcinoma	T2235152-7	5 slides
			Small Cell Carcinoma	T2235152-9	5 slides
Bone Tumor	T2235023	5 slides	Squamous Cell Carcinoma	T2235152-10	5 slides
Chondroblastic Osteosarcoma	T2235023-1	5 slides			
Chondroma	T2235023-2	5 slides	Lymph Nodes Tumor -		
Chondrosarcoma	T2235023-3	5 slides	Non-Hodgkin's Lymphoma	T2235161-1	5 slides
Chondrosarcoma, Grade I - II	T2235023-4	5 slides	Lymph Nodes Tumor -		
Chondrosarcoma, Well Differentiated	T2235023-5	5 slides	Non-Hodgkin's Lymphoma, T Cell	T2235161-2	5 slides
Bone Tumor-Giant Cell Tumor, Grade I-II	T2235023-6	5 slides	Lymph Nodes Tumor-		
Myeloma, Plasmacytic	T2235023-7	5 slides	Reactive Hyperplasia of Lymph Node	T2235161-3	5 slides
Synovial Sarcoma	T2235023-8	5 slides			
			Ovary Tumor-		
Brain Tumor	T2235035	5 slides	Mucous Papillary Cystoadenocarcinoma	T2235183-3	5 slides
Brain Tumor-Astrocytoma Grade I	T2235035-1	5 slides			
Astrocytoma Grade II	T2235035-2	5 slides	Pancreas Tumor	T2235188	5 slides
Brain Tumor-Astrocytoma Grade III	T2235035-3	5 slides	Adenocarcinoma	T2235188-1	5 slides
Brain Tumor-Craniopharyngioma	T2235035-4	5 slides	Pancreas Tumor-Adenocarcinoma,		
Ependymal Glioma	T2235035-5	5 slides	Moderately Differentiated	T2235188-2	5 slides
Brain Tumor-Ependymoma	T2235035-6	5 slides	Pancreas Tumor-Islet Cell Tumor	T2235188-3	5 slides
Brain Tumor-Gliocytoma	T2235035-7	5 slides			
Brain Tumor-Malignant Oligodendroglioma	T2235035-8	5 slides	Parathyroid Tumor	T2235189	5 slides
Brain Tumor-Meningioma	T2235035-9	5 slides			
Meningioma (Fibrous)	T2235035-10	5 slides	Parotid Tumor-Pleomorphic Adenoma	T2235190-5	5 slides
Brain Tumor-Meningioma (Necrotic)	T2235035-11	5 slides			
Brain Tumor-			Pars Cervicalis Tumor		
Oligodendroglioma and Astrocytoma,			Carotid Body Tumor	T2235192-1	5 slides
Mixed Glioma, Grade II	T2235035-12	5 slides			
Brain Tumor-Pilocytic Astrocytoma	T2235035-13	5 slides	Pelvic Tumor-Malignant Mesothelioma	T2235193-2	5 slides
Brain Tumor-Pituitary Adenoma with					
Oncocytic Cell Type	T2235035-14	5 slides	Prostate Tumor	T2235201	5 slides
			Adenocarcinoma	T2235201-1	5 slides
Breast Tumor	T2235086	5 slides	Neoplasia of Prostate	T2235201-2	5 slides
Fibroadenoma	T2235086-1	5 slides			
Invasive Ductal Carcinoma	T2235086-2	5 slides	Skin Tumor	T2235218	5 slides
Lobular carcinoma	T2235086-3	5 slides	Skin Tumor-Basal Cell Carcinoma (Face)	T2235218-1	5 slides
Breast Tumor-Male Breast Hyperplasia	T2235086-4	5 slides	Skin Tumor-Fibrosarcoma	T2235218-2	5 slides
Breast Tumor-			Skin Tumor-Malignant Melanoma	T2235218-3	5 slides
Medullarycarcinoma of Breast	T2235086-5	5 slides	Skin Tumor-Mycosis Fungoides of		
Mucous Adenocarcinoma	T2235086-6	5 slides	Skin (Back)	T2235218-4	5 slides
			Skin Tumor-Squamous Cell Carcinoma	T2235218-7	5 slides
Colon Tumor	T2235090	5 slides	Skin Tumor-Squamous Cell Carcinoma,		
Adenocarcinoma	T2235090-1	5 slides	Well Differentiated	T2235218-8	5 slides
Adenocarcinoma (Mucoïd)	T2235090-2	5 slides			
Adenocarcinoma (Ulcer)	T2235090-3	5 slides	Stomach Tumor-Adenocarcinoma,		
Colon Tumor-Diffuse Type			Poorly Differentiated	T2235248-1	5 slides
Non-Hodgkin's Lymphoma	T2235090-8	5 slides	Stomach Tumor-Adenocarcinoma,		
Colon Tumor-Non-Hodgkin's Lymphoma	T2235090-9	5 slides	Moderately Differentiated	T2235248-2	5 slides
			Stomach Tumor-Adenocarcinoma,		
Esophagus Tumor-			Well Differentiated	T2235248-3	5 slides
Squamous Cell Carcinoma,			Stomach Tumor -		
Moderately Differentiated	T2235106-3	5 slides	Signet-Ring Cell Carcinoma	T2235248-9	5 slides
Esophagus Tumor-			Stomach Tumor-		
Squamous Cell Carcinoma,			Squamous Cell Carcinoma	T2235248-10	5 slides
Poorly Differentiate	T2235106-4	5 slides			

Paraffin Tissue Sections

Tumor Tissue Sections (TpHAT)

Tissue Source	Cat. #	Size
Small Intestine Tumor- Duodenum Adenocarcinoma	T2235226-1	5 slides
Testis Tumor Seminoma	T2235260 T2235260-3	5 slides 5 slides
Throat Tumor- Squamous Cell Carcinoma of Pharynx	T2235263-2	5 slides
Thyroid Tumor-Nodular Goiter of Thyroid Thyroid Tumor-Papillary Adenocarcinoma	T2235265-5 T2235265-7	5 slides 5 slides
Tonsil Tumor Lymphoma of Tonsil	T2235268 T2235268-1	5 slides 5 slides
Uterus Tumor- Endometrium Adenocarcinoma	T2235274-3	5 slides

Human Neurological Diseased Tissue Sections

Single human neurological diseased tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in human Alzheimer, Parkinson's Disease, Dementia, Multiple Sclerosis, Progressive Supranuclear Palsy (PSP), and Depression diseased tissues. More organs may be available upon request.

Human Alzheimer's Diseased Brain Single Tissue Sections (TpHAD-Alz)

Tissue Source	Cat.#	Size
Brain	T2236035Alz	5 slides
Brain: Amygdala	T2236036Alz	5 slides
Brain: Corpus Callosum	T2236045Alz	5 slides
Brain: Frontal Lobe	T2236051Alz	5 slides
Brain: Hippocampus	T2236052Alz	5 slides
Brain: Occipital Lobe	T2236062Alz	5 slides
Brain: Parietal Lobe	T2236066Alz	5 slides
Brain: Pons	T2236071Alz	5 slides
Brain: Postcentral Gyrus (Sensation)	T2236072Alz	5 slides
Brain: Precentral Gyrus (Movement)	T2236073Alz	5 slides
Brain: Temporal Lobe	T2236078Alz	5 slides
Brain: Thalamus	T2236079Alz	5 slides
Brain: Cerebellum	T2236039Alz	5 slides
Brain: Medulla oblongata	T2236057Alz	5 slides

Human Dementia Diseased Brain Single Tissue Sections (TpHAD-Dem)

Tissue Source	Cat.#	Size
Brain: Frontal Lobe	T2236051Dem	5 slides
Brain: Hippocampus	T2236052Dem	5 slides
Brain: Occipital Lobe	T2236062Dem	5 slides
Brain: Parietal Lobe	T2236066Dem	5 slides
Brain: Temporal Lobe	T2236078Dem	5 slides
Brain: Thalamus	T2236079Dem	5 slides

Human Depression Diseased Brain Single Tissue Sections (TpHAD-Dep)

Tissue Source	Cat.#	Size
Depression: Brain: Frontal Lobe	T2236051Dep	5 slides
Depression: Brain: Hippocampus	T2236052Dep	5 slides
Depression: Brain: Occipital Lobe	T2236062Dep	5 slides
Depression: Brain: Parietal Lobe	T2236066Dep	5 slides
Depression: Brain: Temporal Lobe	T2236078Dep	5 slides
Depression: Brain: Thalamus	T2236079Dep	5 slides

Human Progressive Supranuclear Palsy Brain Single Tissue Sections (TpHAD-Psp)

Tissue Source	Cat.#	Size
Brain: Cerebellum	T2236039PSP	5 slides
Brain: Frontal Lobe	T2236051PSP	5 slides
Brain: Medulla oblongata	T2236057PSP	5 slides
Brain: Occipital Lobe	T2236062PSP	5 slides
Brain: Parietal Lobe	T2236066PSP	5 slides
Brain: Pons	T2236071PSP	5 slides
Brain: Temporal Lobe	T2236078PSP	5 slides

Human Multiple Sclerosis Diseased Brain Single Tissue Sections (TpHAD-Msc)

Tissue Source	Cat.#	Size
Brain	T2236035Msc	5 slides
Brain: Amygdala	T2236036Msc	5 slides
Brain: Cerebellum	T2236039Msc	5 slides
Brain: Corpus Callosum	T2236045Msc	5 slides
Brain: Frontal Lobe	T2236051Msc	5 slides
Brain: Hippocampus	T2236052Msc	5 slides
Brain: Medulla oblongata	T2236057Msc	5 slides
Brain: Occipital Lobe	T2236062Msc	5 slides
Brain: Parietal Lobe	T2236066Msc	5 slides
Brain: Pons	T2236071Msc	5 slides
Brain: Postcentral Gyrus	T2236072Msc	5 slides
Brain: Precentral Gyrus	T2236073Msc	5 slides
Brain: Temporal Lobe	T2236078Msc	5 slides
Brain: Thalamus	T2236079Msc	5 slides

Human Parkinson's Diseased Brain Single Tissue Sections (TpHAD-Par)

Tissue Source	Cat.#	Size
Brain	T2236035Par	5 slides
Brain: Amygdala	T2236036Par	5 slides
Brain: Cerebellum	T2236039Par	5 slides
Brain: Corpus Callosum	T2236045Par	5 slides
Brain: Frontal Lobe	T2236051Par	5 slides
Brain: Hippocampus	T2236052Par	5 slides
Brain: Medulla oblongata	T2236057Par	5 slides
Brain: Occipital Lobe	T2236062Par	5 slides
Brain: Parietal Lobe	T2236066Par	5 slides
Brain: Pons	T2236071Par	5 slides
Brain: Postcentral Gyrus	T2236072Par	5 slides
Brain: Precentral Gyrus	T2236073Par	5 slides
Brain: Temporal Lobe	T2236078Par	5 slides
Brain: Thalamus	T2236079Par	5 slides

Human Diabetic Diseased Tissue Sections (TpHAD-Dia)

Tissue Source	Cat.#	Size
Bone Marrow	T2236024Dia	5 slides
Colon	T2236090Dia	5 slides
Duodenum	T2236101Dia	5 slides
Esophagus	T2236106Dia	5 slides
Liver	T2236149Dia	5 slides
Lung	T2236152Dia	5 slides
Pancreas	T2236188Dia	5 slides
Parathyroid	T2236189Dia	5 slides
Skeletal Muscle	T2236171Dia	5 slides
Small Intestine: Ileum	T2236227Dia	5 slides
Small Intestine: Jejunum	T2236230Dia	5 slides
Stomach	T2236248Dia	5 slides

Human Heart Diseased Tissue Sections (TpHAD-Hd)

Single human heart diseased tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in human heart diseased tissues. More organs may be available upon request.

Tissue Source	Cat. #	Size
Arrhythmia, infarct: Heart	T2236122Hd-1	5/box
Arrhythmia, infarct: Heart Atrium, left	T2236126Hd-1	5/box
Arrhythmia, infarct: Heart Atrium, right	T2236127Hd-1	5/box
Arrhythmia, infarct: Heart Ventricle, left	T2236138Hd-1	5/box
Arrhythmia, infarct: Heart Ventricle, right	T2236139Hd-1	5/box
Arrhythmia, infarct: Interventricular Septum	T2236130Hd-1	5/box
Hypertension: Heart	T2236122Hd-2	5/box
Hypertension: Heart Atrium, left	T2236126Hd-2	5/box
Hypertension: Heart Atrium, right	T2236127Hd-2	5/box
Hypertension: Heart Ventricle, left	T2236138Hd-2	5/box
Hypertension: Heart Ventricle, right	T2236139Hd-2	5/box
Hypertension: Interventricular Septum	T2236130Hd-2	5/box
Congenital heart disease: Heart	T2236122Hd-3	5/box

Paraffin Tissue Sections

Human Lung Diseased Tissue Sections (TpHAD-Ld)

Single human lung diseased tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in human asthma, bronchitis, pneumonia, emphysema, and pulmonary embolism lung diseased tissues. More organs may be available upon request.

Tissue Source	Cat. #	Size
Asthma: Lung	T2236152Ld-1	5 slides
Bronchitis: Lung	T2236152Ld-2	5 slides
Emphysema: Lung	T2236152Ld-3	5 slides
Pneumonia: Lung	T2236152Ld-4	5 slides
Pulmonary embolism: Lung	T2236152Ld-5	5 slides

Human Liver Cirrhosis Diseased Tissue Sections (TpHAD-Lcs)

Tissue Source	Cat. #	Size
Liver Cirrhosis: Heart	T2236122Lcs	5/box
Liver Cirrhosis: Kidney	T2236142Lcs	5/box
Liver Cirrhosis: Liver	T2236149Lcs	5/box
Liver Cirrhosis: Lung	T2236152Lcs	5/box
Liver Cirrhosis: Pancreas	T2236188Lcs	5/box
Liver Cirrhosis: Spleen	T2236246Lcs	5/box

Human Lupus Diseased Tissue Sections (TpHAD-Lup)

Tissue Source	Cat. #	Size
Lupus: Heart	T2236122Lup	5/box
Lupus: Kidney	T2236142Lup	5/box
Lupus: Liver	T2236149Lup	5/box
Lupus: Lung	T2236152Lup	5/box
Lupus: Pancreas	T2236188Lup	5/box
Lupus: Spleen	T2236246Lup	5/box

Bovine Normal Tissue Sections (TpBOAN)

Tissue Source	Cat. #	Size
Brain	T2B34035	5/box
Colon	T2B34090	5/box
Heart	T2B34122	5/box
Kidney	T2B34142	5/box
Liver	T2B34149	5/box
Lung	T2B34152	5/box
Skeletal Muscle	T2B34171	5/box
Rectum	T2B34206	5/box
Small Intestine	T2B34226	5/box
Spleen	T2B34246	5/box
Stomach	T2B34248	5/box
Uterus: Cervix	T2B34275	5/box

Guinea Pig Normal Tissue Sections (TpGAN)

Tissue Source	Cat. #	Size
Brain	T2G34035	5/box
Colon	T2G34090	5/box
Heart	T2G34122	5/box
Kidney	T2G34142	5/box
Liver	T2G34149	5/box
Lung	T2G34152	5/box
Skeletal Muscle	T2G34171	5/box
Small Intestine	T2G34226	5/box
Stomach	T2G34248	5/box

Hamster Normal Tissue Sections (TpHSAN)

Tissue Source	Cat. #	Size
Brain	T2H34035	5/box
Liver	T2H34149	5/box
Lung	T2H34152	5/box
Skeletal Muscle	T2H34171	5/box

Monkey Normal Tissue Sections (TpSAN)

Single Rhesus and Cynomolgus monkey normal tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in Rhesus monkey tissues.

Tissue Source	Cat. #	Size
Adipose	T2534003	5 slides
Adrenal	T2534004	5 slides
Appendix	T2534006	5 slides
Bladder	T2534010	5 slides
Blood vessel: Artery	T2534013	5 slides
Blood vessel: Vein	T2534020	5 slides
Brain	T2534035	5 slides
Brain: Cerebellum	T2534039	5 slides
Brain: Corpus Callosum	T2534045	5 slides
Brain: Frontal Lobe	T2534051	5 slides
Brain: Hippocampus	T2534052	5 slides
Brain: Occipital Lobe	T2534062	5 slides
Brain: Parietal Lobe	T2534066	5 slides
Brain: Precentral Gyrus	T2534073	5 slides
Brain: Temporal Lobe	T2534078	5 slides
Breast	T2534086	5 slides
Cecum	T2534089	5 slides
Colon	T2534090	5 slides
Colon Ascending	T2534091	5 slides
Colon Descending	T2534092	5 slides
Colon Sigmoid	T2534095	5 slides
Colon Transverse	T2534096	5 slides
Duodenum	T2534101	5 slides
Epididymus	T2534105	5 slides
Esophagus	T2534106	5 slides
Gallbladder	T2534118	5 slides
Greater Omentum	T2534119	5 slides
Heart	T2534122	5 slides
Heart: Pericardium	T2534133	5 slides
Kidney	T2534142	5 slides
Liver	T2534149	5 slides
Liver: Left Lobe	T2534150	5 slides
Liver: Right Lobe	T2534151	5 slides
Lung	T2534152	5 slides
Trachea	T2534160	5 slides
Lymph Node	T2534161	5 slides
Submaxillary gland	T2534165	5 slides
Diaphragm	T2534169	5 slides
Skeletal Muscle	T2534171	5 slides
Ovary	T2534183	5 slides
Pancreas	T2534188	5 slides
Parotid	T2534190	5 slides
Penis	T2534194	5 slides
Prostate	T2534201	5 slides
Rectum	T2534206	5 slides
Skin	T2534218	5 slides
Small Intestine	T2534226	5 slides
Small Intestine: Ileum	T2534227	5 slides
Small Intestine: Jejunum	T2534230	5 slides
Spinal cord	T2534234	5 slides
Spleen	T2534246	5 slides
Stomach	T2534248	5 slides
Stomach: Cardia	T2534250	5 slides
Testis	T2534260	5 slides
Thymus	T2534264	5 slides
Thyroid	T2534265	5 slides
Tongue	T2534267	5 slides
Tonsil	T2534268	5 slides
Ureter	T2534273	5 slides
Uterus	T2534274	5 slides
Uterus: Cervix	T2534275	5 slides
Vagina	T2534283	5 slides
Brain: Basal Ganglia	T2534037	5 slides
Ductus deferens	T2534100	5 slides
Fallopian Tube	T2534115	5 slides

Monkey Normal Tissue Sections (TpSAN)

Product Info.	Cat. #	Size
Adipose	T2534003-Cy	5 slides
Adrenal	T2534004-Cy	5 slides
Appendix	T2534006-Cy	5 slides
Bladder	T2534010-Cy	5 slides
Blood Vessel: Artery	T2534013-Cy	5 slides
Blood Vessel: Vein	T2534020-Cy	5 slides
Brain	T2534035-Cy	5 slides
Breast	T2534086-Cy	5 slides
Cecum	T2534089-Cy	5 slides
Colon	T2534090-Cy	5 slides
Colon Ascending	T2534091-Cy	5 slides
Colon Descending	T2534092-Cy	5 slides
Colon Sigmoid	T2534095-Cy	5 slides
Colon Transverse	T2534096-Cy	5 slides
Duodenum	T2534101-Cy	5 slides
Epididymus	T2534105-Cy	5 slides
Esophagus	T2534106-Cy	5 slides
Gallbladder	T2534118-Cy	5 slides
Heart	T2534122-Cy	5 slides
Heart: Pericardium	T2534133-Cy	5 slides
Kidney	T2534142-Cy	5 slides
Liver	T2534149-Cy	5 slides
Liver: Left Lobe	T2534150-Cy	5 slides
Liver: Right Lobe	T2534151-Cy	5 slides
Lung	T2534152-Cy	5 slides
Trachea	T2534160-Cy	5 slides
Submaxillary gland	T2534165-Cy	5 slides
Diaphragm	T2534169-Cy	5 slides
Skeletal Muscle	T2534171-Cy	5 slides
Pancreas	T2534188-Cy	5 slides
Parotid	T2534190-Cy	5 slides
Penis	T2534194-Cy	5 slides
Prostate	T2534201-Cy	5 slides
Rectum	T2534206-Cy	5 slides
Skin	T2534218-Cy	5 slides
Small Intestine	T2534226-Cy	5 slides
Small Intestine: Ileum	T2534227-Cy	5 slides
Small Intestine: Jejunum	T2534230-Cy	5 slides
Spinal cord	T2534234-Cy	5 slides
Spleen	T2534246-Cy	5 slides
Stomach	T2534248-Cy	5 slides
Stomach: Cardia	T2534250-Cy	5 slides
Testis	T2534260-Cy	5 slides
Thymus	T2534264-Cy	5 slides
Thyroid	T2534265-Cy	5 slides
Tongue	T2534267-Cy	5 slides
Ureter	T2534273-Cy	5 slides
Uterus	T2534274-Cy	5 slides
Uterus: Cervix	T2534275-Cy	5 slides
Vagina	T2534283-Cy	5 slides

Mouse Normal Tissue Sections (TpMAN)

Product Info.	Cat. #	Size
Adipose	T2334003	5 slides
Brain	T2334035	5 slides
Heart	T2334122	5 slides
Kidney	T2334142	5 slides
Liver	T2334149	5 slides
Lung	T2334152	5 slides
Skeletal Muscle	T2334171	5 slides
Pancreas	T2334188	5 slides
Placenta	T2334200	5 slides
Spleen	T2334246	5 slides
Testis	T2334260	5 slides

Nude Mouse Normal Tissue Sections (TpNMAN)

Product Info.	Cat. #	Size
Brain	T2N34035	5 slides
Colon	T2N34090	5 slides
Ear	T2N34104	5 slides
Heart	T2N34122	5 slides
Kidney	T2N34142	5 slides
Liver	T2N34149	5 slides
Lung	T2N34152	5 slides
Skeletal Muscle	T2N34171	5 slides
Small Intestine	T2N34226	5 slides
Stomach	T2N34248	5 slides

Porcine Normal Tissue Sections (TpPAN)

Product Info.	Cat. #	Size
Brain	T2934035	5 slides
Colon	T2934090	5 slides
Heart	T2934122	5 slides
Kidney	T2934142	5 slides
Liver	T2934149	5 slides
Lung	T2934152	5 slides
Skeletal Muscle	T2934171	5 slides
Rectum	T2934206	5 slides
Small Intestine	T2934226	5 slides
Spleen	T2934246	5 slides
Stomach	T2934248	5 slides
Uterus: Cervix	T2934275	5 slides

Rabbit Normal Tissue Sections (TpBAN)

Single rabbit (New Zealand White) normal tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in rabbit tissues.

Product Info.	Cat. #	Size
Brain	T2834035	5/box
Colon	T2834090	5/box
Ear	T2834104	5/box
Heart	T2834122	5/box
Kidney	T2834142	5/box
Liver	T2834149	5/box
Lung	T2834152	5/box
Skeletal Muscle	T2834171	5/box
Small Intestine	T2834226	5/box
Stomach	T2834248	5/box

Rat Normal Tissue Sections (TpRAN)

Single rat (Wister or Sprague Dawley) normal tissue with 5 µm thickness is mounted on each positively charged glass slide. These tissue sections are designed for rapidly identifying cellular localization of genes or proteins in rat tissues.

Product Info.	Cat. #	Size
Adipose	T2434003	5 slides
Brain	T2434035	5 slides
Heart	T2434122	5 slides
Kidney	T2434142	5 slides
Liver	T2434149	5 slides
Lung	T2434152	5 slides
Skeletal Muscle	T2434171	5 slides
Pancreas	T2434188	5 slides
Placenta	T2434200	5 slides
Spleen	T2434246	5 slides
Testis	T2434260	5 slides

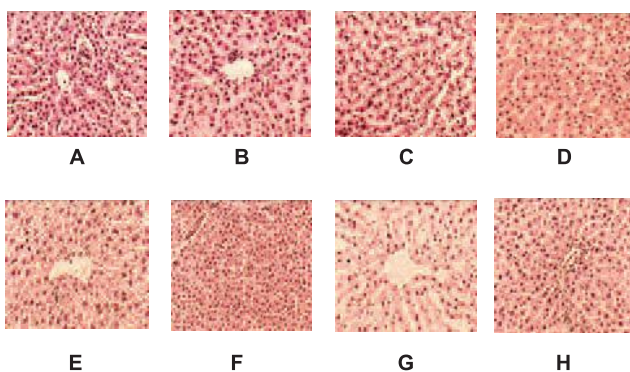


Figure 4.13. HE Staining of Animal Tissue Sections. The tissue sections were paraffin embedded, and selected from amsbio's Animal Tissue Section Slides. Pictures were taken at 440X magnification.

Panel A. Bovine Liver; Panel B. Guinea Pig Liver;
Panel C. Hamster Liver; Panel D. Monkey Liver;
Panel E. Mouse Liver; Panel F. Porcine Liver
Panel G. Rabbit Liver; Panel H. Rat Liver

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