Anatomic Pathology Services

Standard Tissue Trimming for Rodents

The IDEXX BioResearch team of experienced pathologists and histology technicians use standardized trimming protocols for rodent tissues. Please contact us with questions about our standard practices or to discuss a customized trimming protocol for your upcoming study.

Contact us: your account manager or laboratory directly at 916-267-2530 or prshisto@idexx.com
Research Support Team (RST): 1-800-544-5205, opt. 2 or preclinicalresearch@idexx.com

Tissue	# Sections	Description
Brain	3	Cross section of forebrain, midbrain and hindbrain
Heart	1	Longitudinal piece to represent right ventricle, left ventricle and atria
Lungs	1	Cross section through the hylus to represent all lobes
Liver	1	Mouse: cross section of medial lobe (to include gall bladder) Rat: cross section of left lateral lobe
Spleen	1	Cross section to represent the most triangulated section
Kidneys	2	Right kidney: cross section. Left kidney: longitudinal section.
Stomach	1	Cross section to represent both glandular and non-glandular areas
Intestines (small + large)	6	Cross sections of the following: duodenum (mouse: longitudinal section, rat: cross section), jejunum, ileum, cecum, colon, rectum
Bladder	1	Cross section
Trachea/Esophagus Thyroid/Parathyroid	1	Submitted attached as a single section for mice. Attached and bisected for rats.
Pituitary	1	Submitted whole
Adrenals	2	Submitted whole
Eyes/Optic Nerve	2	Mouse: whole Rat: trimmed to expose structures
Hardarian Gland	2	Cross section
Salivary Gland	1	Cross section to represent both lobes, all three glands included.
Sciatic Nerve	2	Cross and longitudinal sections
Skin/Mammary	1	Longitudinal cross section, in direction of hair growth to include nipple if present
Skeletal Muscle	1	Longitudinal cross section of Biceps Femoris
Lymph Nodes	2	Mandibular and Mesenteric
Tongue	1	Cross section
Thymus	1	Rats: Cross section Mouse: Whole
Aorta	1	Cross section
Bone Marrow: Sternum	1	Longitudinal Section, to include 2-3 sternebrae if possible.
Bone Marrow: Femur	1	Cross section to include femoral-tibial joint
Injection Site	1	Cross section (usually tail or skin)
Reproductive Organs Female		
Ovaries	2	Submitted whole right and left
Uterine Horns	2	Cross section of left and right
Cervix	1	Cross section
Vagina	1	Cross section
Reproductive Organs Male		
Testes	2	Cross section of right and left
Seminal Vesicles	2	Cross section of right and left
Epididimes	1	Whole, to include head, tail and body
Prostate	1	Longitudinal section

More information and standards for sectioning additional organs can be found at http://reni.item.fraunhofer.de/reni/trimming/

Anatomic Pathology Services

Histology Tissue Collection and Shipping

Here at IDEXX BioResearch we recognize that sample quality is directly correlated to the quality of slides and/or pathological report you will receive. In order to receive the best results we recommend following the guidelines for tissue collection, preservation and shipping. Please contact us with questions about our standard practices or to discuss customized protocols for your upcoming study.

Contact us: your account manager or laboratory directly at 916-267-2530 or prshisto@idexx.com
Research Support Team (RST): 1-800-544-5205, opt. 2 or preclinicalresearch@idexx.com

Sample Collection Steps

- Place tissues in formalin for at least 24 hours before shipment. Tissue to formalin ratio should be 1 to 20 for proper fixation. Whole rodent and tissues such as lung, brain, bone marrow and spinal cord have specialized collection protocols. Contact us for more information.
- Make sure tissues are not tightly packed in jars or cassettes. Smaller tissues can be placed in a cassette or submitted attached to surrounding organs.
- Label cassettes with pencil. Even indelible ink will fade during processing.
- Tissues can be shipped in 70% alcohol or formalin. If IHC staining is required, please consult with our team for the proper fixation protocol for your IHC staining requirements.
- Store and ship samples fixed samples at room temperature. Frozen samples must be stored and shipped on dry ice.

Tissues Shipment Steps

To preserve sample integrity and prevent leakage samples should be triple-bagged with each layer tied, knotted or secured individually.

- Screw-topped containers are preferred. Make sure the lid is tightly secured to the jar and place a layer of Para film or tape to secure the lid to the jar.
- Invert the jar to check for leaks and reseal if needed.
- Place jar(s) into one gallon Ziploc bag with absorbent material such as paper towels and seal.
- Place samples in sealed Ziploc bag in a second Ziploc bag and seal or double-line (one bag inside of another) the shipping box with large garbage bags and tie off each bag separately.
- Prior to knotting the first garbage bag, place absorbent packing materials around the bagged samples to not only absorb any leaked fluid but to prevent jostling and stabilize samples during shipment.
- If sample jars are too large to seal in a one gallon Ziploc bag you can also use garbage bags to triple line the shipping container. Absorbent material should be placed around the samples in the first garbage bag prior to tying a knot in the bag.
- Place the Histological Samples Inventory Form(s) and other supporting documents (if needed) on the outside of the second garbage bag. Do not tape the inventory form to the outside of the box or place with samples in the same Ziploc bag.
- Contact us for instructions on collecting and shipping frozen tissues or tissues embedded in OCT.

We welcome you to submit diagrams or other special instructions if you would like to customize your study. We also have experience with a wide variety of research animal models. Consult with us to help determine the best collection and shipping protocol for your research application.

IDEXX BioResearch