

 <b>NATIONAL CANCER INSTITUTE</b> BBRB Biorepositories and Biospecimen Research Branch		<b>GTEx Organ Retrieval, Dissection, and Preservation Details Table</b>	
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**To Utilize as a Visual Guide for Procurement Staff**



**Trim extraneous fat from target tissues.**

**\* Tissues and Aliquots for Dry Ice Preservation (as applicable)**



Organ Type (* also for Frozen)	Preferred Location	Dimension of Aliquot (mm) (usually 2 aliquots per cassette/cryosette)	# of PAXgene® Tissue Cassettes
			Frozen Cryosettes*
Hair	Head area Note: Hair must be dry	≤4 mm thick in Glassine and manila envelope	N/A
Blood	Subclavian vein, femoral vein, any peripheral vein, and heart (designate location)	No greater than 25 mL	N/A
Skin, Leg*	Left or right leg (designate side) 2 cm below patella on medial side.	4mm x 4mm x thickness (fibroblast culture)	1 tube for culture
		10 mm x 10 mm x thickness strip (≤4 mm) (for fixative)	2
		20 mm x 10 mm x thickness (≤ 4 mm)*	3*
Skin, Suprapubic Area	Extension of the abdominal incision to the suprapubic area avoiding pubic hair. Visible antiseptic should be gently removed with an alcohol swab.	10 mm x 10 mm x thickness strip (≤4 mm)	2
Adipose	Left leg, Right leg (designate side)	10 mm x 10 mm x ≤4 mm, with compression	2
Heart*	Anterior left ventricle	10mm x 10mm x ≤4 mm	2
		20 mm x 10 mm x ≤ 4 mm*	3*
Heart	Right atrial appendage, tip (if fatty or discolored, take more proximally)	10 mm x 10 mm x thickness slice, ≤4 mm	2
Aorta	Ascending/thoracic region	10mm x 10mm x thickness (<4 mm)	2

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			Frozen Cryosettes*
Breast (female and male)	Central breast, subareolar	10 mm x 10 mm x ≤4 mm	2
Breast (female only)*	Central breast, subareolar	20 mm x 10 mm x ≤ 4 mm*	3*
Lung*	Inferior segment of left upper lobe, below pleura. Avoid large arteries, veins, and bronchi.	10mm x 10mm x ≤4 mm	2
		20 mm x 10 mm x ≤ 4 mm*	3*
Esophagus-Mucosa*	Squamous region (distal/lower third), >4 cm above GE junction	10 mm x 10 mm x thickness (≤4 mm)	2
		20 mm x 10 mm x thickness (≤4 mm) *	3*
Esophagus-Muscularis*	Squamous region (distal/lower third), > 4 cm above GE junction. Avoid the mid-esophagus where skeletal muscle is found.	10 mm x 10 mm x thickness (≤4 mm)	2
		20 mm x 10 mm x thickness (≤4 mm) *	3*
Gastroesophageal Junction	Gastroesophageal junction: the lowest portion of the esophagus just proximal to the stomach. Obtain only muscularis propria; discard mucosa; avoid stomach	10 mm x 10 mm x thickness (≤4 mm)	2
Liver	Central right lobe, below capsule. Avoid large blood vessels.	10mm x 10mm x ≤4 mm	2
Spleen	Central region, below capsule. Avoid large blood vessels.	10mm x 10mm x ≤4 mm	2
Pancreas	Mid-portion (not tail). Avoid large blood vessels and ducts.	10mm x 10mm x ≤4 mm	2
Kidney-Cortex	Left cortex, Right cortex	10mmx 10mm x ≤4 mm	2

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Adrenal	Left (priority) and right (if necessary)	Full cross-section, ≤4 mm thickness	2
Colon	Transverse, (Gently rinse mucosa with normal saline before aliquot preparation); Full thickness: mucosa and muscularis	10 mm x 10 mm x thickness (≤4 mm)	2
Colon	Sigmoid colon, (Gently rinse mucosa with normal saline before aliquot preparation). Obtain muscularis only; discard mucosa.	10 mm x 10 mm x thickness (≤ 4 mm)	2
Intestine- Lymphoid tissue of terminal ileum (Peyer Patches)	The most distal part of the small intestine; thickened mucosa with a punctuate appearance corresponding to lymphoid nodules (Peyer Patches) just proximal to the ileocecal valve. Discard muscularis propria.	10 mm x 10 mm x thickness (≤ 4mm) or aggregated equivalent.	2
Stomach	Body (Gently rinse mucosa with normal saline before aliquot preparation)	10 mm x 10 mm x thickness (≤4 mm)	2
Greater Omentum (Visceral Adipose Tissue)	Large fold of parietal peritoneum that hangs down from the greater curvature of the stomach, passing in front of the small intestines and reflects on itself to ascend to the transverse colon	10 mm x 10 mm x ≤4mm	2
Muscle, Skeletal* (Gastrocnemius)	Below patella (designate side)	10mm x 10mm x ≤4 mm	2
		20 mm x 10 mm x ≤ 4 mm*	3*
Peripheral Nerve, (Tibial)	Left tibial	10 mm length	2

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Artery(Tibial)	Left tibial	10 mm length	2
Uterus	Corpus	10mm x 10mm x ≤4 mm	2
Ovary	Left and right (if necessary)	10mm x 10mm x ≤4 mm	2
Vagina	Anterior preferred over posterior	10 mm x 10 mm x thickness (≤4 mm)	2
Prostate Gland*	Non-nodular grossly normal region	10mm x 10mm x ≤4 mm	2
		20 mm x 10 mm x ≤ 4 mm*	3*
Testis	Left testis, right testis (if necessary)	10mm x 10mm x ≤4 mm	2
Thyroid	Right or left grossly normal non-nodular normal regions	10mm x 10mm x ≤4 mm	2
Brain-Whole	Whole Brain + Brain Stem + Cervical Cord	N/A	N/A
Brain-Cortex	Right frontal pole. Strip off any loose membranous meninges from the aliquots.	5 mm cubes or equivalent with minimal white matter. (4 aliquots per cassette)	2
Brain-Cerebellum	Right. Strip off any loose membranous meninges from the aliquots.	5 mm cubes or equivalent. (4 aliquots per cassette)	2
Pituitary	Entire gland	Cross-section anterior-posterior (sagittally)	2
Coronary Artery	Left, Right (Non-calcific regions)	10 mm length	2
Minor Salivary Glands	Inner surface of lower lip. Evert the lower lip and, using a chalzion clamp (if available), make a 10 mm long and 5 mm deep incision of the inner surface of the lip. (Avoid incising the outer lip resulting in a cosmetic defect, which must be avoided.)	Two or more adjacent glands per cassette; not greater than 5 mm cubed	2

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