



Immunohistochemistry Services

Technical Only | Stain and Return

The immunohistochemistry laboratory at the University of Nebraska Medical Center offers more than 150 different immunohistochemistry stains that can be used to help in the diagnosis of a wide range of malignancies and infectious diseases. There are 6 Ventana Benchmark ULTRA instruments and 1 Ventana Discovery ULTRA instrument in the laboratory. More than 56,000 immunohistochemistry stains are performed each year. The stains are typically performed using a brown chromogen; however, upon request a red chromogen may be used for the S100 Melan A, Sox10 and PRAME stains. Positive controls are typically placed on the same slide as the patient specimen (space permitting).

Immunohistochemistry staining on outside material can be performed using the paraffin block (preferred) or unstained positively charged slides. If submitting unstained slides, please submit a minimum of two additional unstained slides so we can automatically repeat the stain in case of stain failure.

Except for consultations, staining of outside material is typically performed as a technical-only service. Upon request we will perform stain interpretation for stains involving infectious diseases and for therapeutic purposes (ex. ER, Her2/neu, PD-L1).

SPECIMEN REQUIREMENTS

Specimen Preparation

- Formalin fix (10% neutral buffered formalin is preferred) paraffin embed specimen.
- Two slides minimum are required; if sending precut slides, do not oven bake.

Storage/Transport/Stability Temperature

- Protect paraffin block and/or slides from excessive heat. Transport tissue block or unstained (3 – 5 micron thin sections), positively charged slides.
 - » Kits (KIT_27) are available online through www.reglab.org or by contacting Regional Pathology Services at 800-334-0459. Kits include prepaid air bills, shipping containers and slide boxes.
- Room temperature or refrigerated; ship in cooled container during summer months. Stability ambient or refrigerated; indefinite, frozen; unacceptable.

Unacceptable Conditions

- Specimens submitted with non-representative tissue type. Depleted specimens.
- Specimens fixed in any fixative other than 10% neutral buffered formalin.

TESTING INFORMATION

Methodology:

Immunohistochemistry

Performed:

Monday – Friday

Reported:

1 – 3 days

Acceptable Specimens:

FFPE block and USS

CONTACT INFORMATION

Contact your account manager to setup these services.

Regional Pathology Services

402.559.6420 | 1.800.334.0459

www.reglab.org

Shipping Address

UNMC Shipping & Receiving Dock

Regional Pathology Services,
MSB 3500

University of Nebraska Medical Center
601 S Saddle Creek Road
Omaha, NE 68198-1180

STAIN AND RETURN ONLY

Note: The following list is available for stain-and-return service only. Slides will be returned to the client pathologist for interpretation. If interpretation is needed, please order the appropriate consultation. Stand-alone stain and interpretations are not available unless otherwise indicated.

Breast/Endometrium/Ovary/

Testes Markers

- Androgen Receptor
- E-cadherin
- Estrogen Receptor
- GATA3
- Human chorionic gonadotropin (hCG)
- Inhibin
- OCT-3/4
- p120
- Pan Breast (GCDFFP and Mammaglobin)
- Placental alkaline phosphatase (PLAP)
- Progesterone Receptor
- SALL4
- Steroidogenic factor-1 (SF-1)

Differentiation Markers

- AMACR (p504s)
- Calretinin
- CD99
- CDX2
- DOG1
- Estrogen
- Histone H3.3 G34W
- Inhibin
- NKX2.2 (Ewing)
- NKX3.1 (Prostate)
- p40
- p57
- p63
- Pan Breast (GCDFFP and Mammaglobin)
- PAP
- PAX8
- PD-L1
- PIN4
- PRAME
- PSA
- Parathyroid hormone (PTH)
- SATB2
- SDHB
- SS18-SSX
- STAT6

Epithelial Markers

- AE1/AE3
- AMACR (p504s)
- beta-catenin
- Calretinin
- Cam5.2
- CDX2
- CEA-monoclonal
- CK 5/6
- CK 7
- CK 20
- CK 903
- CK 17
- CK 19
- Claudin-4
- c-Myc
- E-cadherin
- EMA
- Ep-CAM (MOC-31)
- Napsin A
- p40
- Pan-Cytokeratin
- PIN4
- SOX-10
- TTF-1
- WT-1 (6F-H2)

Hematopoietic

- ALK-mono
- Annexin A1
- BCL-2
- BCL-6
- CD2
- CD3
- CD4
- CD5
- CD7
- CD8
- CD10
- CD15
- CD19
- CD20
- CD21
- CD23
- CD30
- CD31
- CD33
- CD34
- CD43
- CD45
- CD56
- CD61
- CD68
- CD79a
- CD117
- CD123
- CD138
- Clusterin
- CXCL13
- Cyclin D1
- FoxP1
- GCET1
- Glycophorin C
- Granzyme B
- IgA
- IgD
- IgG
- IgG4
- IgM
- Kappa by IPOX
- Kappa by insitu hybridization
- Lambda by IPOX
- Lambda by insitu hybridization
- Ki-67
- Myeloperoxidase (MPO)
- MUM-1
- p63
- Pax-5
- PD-1
- Sox-11
- TCR alpha-beta
- TCR gamma-delta
- Tdt
- TIA-1
- Tryptase

Histiocytic Markers

- CD1a
- CD68
- Lysozyme

Kidney Markers

- Carbonic Anhydrase IX
- Cathepsin K
- Pax-8

Liver Markers

- Alpha-1-antitrypsin
- Alpha fetoprotein (AFP)
- Arginase 1 (ARG-1)
- Glutamine Synthetase
- Glypican 3
- Hepatocyte

Melanocytic Markers

- BAP1
- HMB-45
- Melan A
- S100
- Sox10

Mesenchymal Markers

- Vimentin

Microbial Marker

- Helicobacter Pylori
- Treponema

Mucinous Markers

- Muc-4

Muscle Marker

- Caldesmon (h-CD)
- Desmin
- Muscle Specific Actin (MSA)
- MyoD1
- Myogenin
- Smooth muscle actin (SMA)
- Myosin, smooth muscle

Nervous System Markers

- alpha synuclein
- ATRX
- Beta Amyloid
- CD56
- GFAP
- H3K27M
- H3K27me3
- HNF-1-beta
- IDH1
- NeuN
- Neurofilament
- Olig2
- PHF-Tau
- Phosphorylated TDP-43
- S-100
- Somatostatin Receptor 2A
- SOX-10
- TARDBP

Neuroendocrine Markers

- CD56
- Chromogranin
- NKX2.2
- Synaptophysin

Oncogene/Tumor Suppressor Markers

- p16
- p53

Pancreas Markers

- Gastrin

Peripheral Neuroectodermal Markers

- CD99
- NKX2.2 (Ewing)

Pituitary

- ACTH
- FSH
- Human growth hormone
- Luteinizing Hormone
- Pituitary-specific positive transcription factor 1
- Prolactin
- TSH

Prognostic Markers

- BRAF
- Her2/neu
- Ki-67
- MLH1
- MSH2
- MSH6
- PMS2
- p16
- p53
- PD-L1 (22C3)
- WT-1

Thyroid/Parathyroid Markers

- Calcitonin
- Galectin-3
- HBME-1
- Parathyroid hormone (PTH)
- Thyroglobulin
- TTF-1

Vascular Markers

- C4d
- CD31
- CD34
- Collagen IV
- D2-40
- ERG
- Glut-1

Viral Markers

- Adenovirus
- CMV
- EBER (EBV by insitu hybridization)
- HHV 8
- HPV low risk (6,11) by insitu hybridization
- HSV 1&2
- SV40 (BK Virus)
- VZV