

Immunohistochemistry Panels

Acute Leukemia Panel

CD3, CD10, CD20, CD34, CD56, CD61, CD79a, CD117, Glycophorin-A, HLA-DR, MPO, TdT

Adenocarcinoma vs. Mesothelioma

BerEP4, Calretinin, CD68, CEAm, Desmin, GLUT-1, MOC31, Napsin A, TTF-1

Breast carcinoma, R/O Invasion Panel

Calponin, CD10, p63, SMM-HWC

Germ Cell Tumor

AFP, CAM 5.2, CD30, CD117, Glypican-3, HCG, Oct 3/4, PLAP, Podoplanin, SALL4

GIST Panel

Actin, CD34, CD117, DOG-1, S100, SMA

Hepatocellular vs. Cholangiocarcinoma vs. Metastatic Carcinoma

AFP, CA19.9, CAM 5.2, CDX2, CEAm, CK7, CK20, Glypican-3, Hepatocyte, PODXL-1, TTF-1

Hodgkin Lymphoma Profile

CD3, CD15, CD20, CD30, CD45, CD79a, EBV, Fascin, PAX-5

Lung Carcinoma: Adenocarcinoma vs. Squamous Cell Carcinoma

CK5/6, Napsin A, p40, TTF-1

Mismatch Repair Protein (MMR) for Lynch Syndrome

MLH1, MSH2, MSH6, PMS2

Neuroendocrine Neoplasm

CAM 5.2, CD56, Chromogranin, Ki-67, Synaptophysin, TTF-1

NHL vs. Reactive Hyperplasia, Lymphoma Panel

BCL-2, BCL-6, CD3, CD5, CD10, CD20, CD23, CD43, Cyclin D1, Kappa, Ki-67, Lambda, MUM-1

Plasma Cell Dyscrasia/Multiple Myeloma

CD20, CD45, CD56, CD79a, CD138, Cyclin D1, IgA, IgG, IgM, Kappa, Lambda

Prostate Cancer Profile

CK903, p504S, p63

Spindle Cell Neoplasm Panel

Actin, AE1/AE3, CD34, CD68, CD117, Desmin, Factor XIIIa, Ki-67, S100, SMA, Vimentin

Tumor of Unknown Primary (Female)

AE1/AE3, CA19.9, CA125, CD45, CDX2, CEAm, CK7, CK20, ER, GCDPF-15, Hepatocyte, p63, PAX-8, PR, Renal Cell, S100, TTF-1

Tumor of Unknown Primary (Male)

AE1/AE3, CA19.9, CD45, CDX2, CEAm CK7, CK20, Hepatocyte, Napsin A, p63, PSMA, Renal Cell, S100, TTF-1

Special Stains

Acid Fast Bacilli (AFB), Alcian Blue, Congo Red (amyloid), Elastic, Fite's Acid Fast Stain, Giemsa, Gomori Methenamine Silver (GMS), Gram Stain, Hale's Colloidal Iron, Iron, Myeloperoxidase (MPO), Mucicarmine, Nonspecific Esterase (NSE), PAS, PAS-D, Reticulin, Trichrome, Warthin-Starry

Note: MPO and NSE are only done on smears (peripheral blood or bone marrow smears).

Shipping to GenPath

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Instructions for Shipping

1. Fill-out the provided label with patient's first name, last name, date of birth, and date and time of specimen collection.
2. Sign and complete the Requisition Form. Please be sure to fill in all fields of information, including the patient's demographics and billing information.
3. Verify that the appropriate specimen requirements have been met (sample type, volume, collection tube type).
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Antibody Library

Immunohistochemistry (IHC)

ANTIBODY	CLONE	DESCRIPTION
A-ACT	Polyclonal	Alpha-1-antichymotrypsin, myeloid cells, histiocytes
AAT	Polyclonal	Alpha-1-antitrypsin; hepatocellular cells
ACTH	Polyclonal	Human Adrenocorticotrophic Hormone, pituitary
Actin	HHF-35	Muscle, myofibroblastic and myeloepithelial cells
Adenovirus	2D/11 & 2/6	Adenovirus identification
AE1/AE3	AE1/AE3	Pankeratin cocktail; low and high molecular weights
AFP	Polyclonal	Alpha Fetoprotein; hepatocellular and germ cell tumors
ALK (EML4/ALK)	D5F3	ALK protein, including fusion proteins EML4-ALK and NPM-ALK
ALK-1	ALK01	Anaplastic Large Cell Lymphoma
Amyloid A	MCL	Reactive systemic (secondary) amyloidosis
Androgen Receptor	SP107	Prostatic and breast adenocarcinoma prognostic marker
Annexin-1	MRQ-3	Hairy Cell Leukemia marker
Arginase-1	SP156	Hepatocytes; hepatocellular carcinoma
BCA-225	CU18	Breast carcinomas, other carcinomas
BCL-2	124	B-cell subset, follicular lymphoma
BCL-6	GI191E/A8	Follicle center B-cells
BerEP4	BerEP4	Epithelial antigen, adenocarcinoma subset
Beta-Catenin	14	Colon, breast, other GI tumors
BF-1	8A3	T-cell receptor beta F1
BOB-1	MRQ-35	B-cell transcription factor
CA19.9	121SLE	GI, ovary, lung tumors
CA125	OC125	Ovarian, breast, others
Calcitonin	Polyclonal	Thyroid, medullary carcinoma
Caldesmon	E89	Smooth muscle and non-muscle contraction
Calponin	EP798Y	Myoepithelial and myofibroblastic cells
Calretinin	SP65	Mesothelial cells
CAM 5.2	5D3	CK8/18, Low molecular weight keratins
Carbonic Anhydrase	AB15086	Renal Cell Carcinoma
Cathepsin D	Polyclonal	Cathepsin D, breast carcinoma
CD1a	MTB1	Cortical thymocytes
CD2	MRQ-11	Thymic and peripheral T-cells, NK cells
CD3	2GV6	Pan T-cells
CD4	SP35	Helper T-cells, thymocyte subset, monocytes
CD5	SP19	Pan T-cells, B-cell subset thymic carcinoma
CD7	MRQ-12	Pan T-cells, NK cells
CD8	SP57	Suppressor/cytotoxic T-cells; splenic littoral cells
CD10	SP67	Follicle center B-cells, endometrial stromal and myoepithelial cells, CALLA
CD15	MMA	Epithelial, myeloid and Reed-Sternberg cells
CD20	L26	Pan B-cell antigen
CD21	2G9	Follicular dendritic cells, C3d Receptor, B-cell subset
CD23	SP23	B-cell subset, CLL/SLL, follicular dendritic meshwork
CD25	4C9	TAC, Activated T and B-cells, hairy cell leukemia
CD30	Ber-H2	Activation Antigen; Reed-Sternberg cells, ALCL (Ki-1)
CD31	JC70	Endothelial cells
CD33	WM-54	CD33-positive myeloid cells
CD34	QBend/10	Endothelial and stem cells, GIST, Blasts
CD35	RLB25	Follicular Dendritic Cells
CD43	L60	T-cells, myeloid cells, B-cell subset
CD44	MRQ-13	Intercellular adhesion molecule, urothelial carcinoma
CD45	RP2/18	Leukocyte common antigen
CD45R	MB1	Pan B-cell antigen (4KB5)
CD45RO	UCHL1	T-cells, macrophages, granulocytic precursors
CD56	123C3	N-CAM; neuroendocrine marker, NK cells
CD57	NK-1	Neuroendocrine marker, NK cells
CD61	Y2/51	Megakaryocytes and platelets
CD68	KP-1	Macrophages, monocytes
CD79a	SP18	B-cells, plasma cells
CD99	O13	PNET, Ewing's sarcoma
CD117	YR145	c-kit ligand, myeloid and mast cell marker, GIST
CD123	BR4MS	Plasmacytoid dendritic cells, plasmacytoid monocytes
CD138	B-A38	Plasma cells and epithelial cell subset
CD163	MRQ-26	Macrophages, monocytes
CDX2	EPR2764Y	Carcinoma subset; intestinal-type tumors
CEA monoclonal	TF3H8-1	Carcinoembryonic antigen, adenocarcinoma
CEA polyclonal	Polyclonal	Carcinoembryonic antigen, adenocarcinoma
Chromogranin A	LK2H10	Neuroendocrine markers
CK5/6	D5/16B4	Squamous and mesothelial cells
CK7	SP52	Carcinoma subset
CK8	35BetaH11	LMW cytokeratin, non-squamous cell tumors
CK 8/18	B22.1/B22.3	Paget cells
CK14	LL002	Squamous epithelia, renal oncolytic tumors, metaplastic breast carcinoma
CK17	SP95	Carcinoma subset (including pancreaticobiliary)
CK19	A53-B/A2.26	Carcinoma subset (including pancreaticobiliary); 46 kD keratin
CK20	SP33	Carcinoma subset (GI, others); 46 kD keratin
CK903	34BE12	High molecular weight cytokeratin
CMV	DDG9/CCH2	Cytomegalovirus
Collagen IV	CIV22	Type IV collagen, basement membrane protein
COX-2	SP21	Cyclooxygenase enzyme, upregulated in many tumors
Cyclin D1 (BCL-1)	SP4-R	Cyclin D1/PRAD1, mantle cell lymphoma
Desmin	DE-R-11	Striated and smooth muscle cells
DOG-1	SP31	Gastrointestinal stromal tumor
EBV (LMP-1)	CS 1-4	Epstein-Barr virus LMP (latent membrane protein)
E-Cadherin	36	Epithelial cells; ductal-type breast carcinoma
EGFR	3C6	Epidermal growth factor receptor
EMA	E29	Epithelial membrane antigen
EpCam	MOC-31	Adenocarcinoma, columnar epithelium
ER	SP1	Estrogen receptor

Immunohistochemistry (IHC)

ANTIBODY	CLONE	DESCRIPTION
ERG	EP111	Expressions has been observed in prostate carcinomas and high-grade prostatic intraepithelial neoplasia (HGPN)
Factor VIIIIRA	Polyclonal	Von Willebrand receptor; megakaryocytes and endothelium
Factor XIIIa	AC-1A1	Fibrohistiocytic and dermal dendritic cells
Fascin	55K-2	Classical Hodgkin lymphoma, Dendritic meshwork
FLI-1	MRQ-1	Ewing sarcoma/peripheral primitive neuroectodermal tumor, endothelial cells
FOXP3	236A/E7	Forkhead Box P3; immune modulator of T-cells
FSH	Polyclonal	Follicle Stimulating Hormone, Pituitary
Gastrin	Polyclonal	Carcinoid and islet cell tumors
GATA-3	L50-823	Transcription factor that regulates the development and subsequent maintenance of multiple tissues
GCDFP-15	EP1582Y	Gross cystic disease fluid protein, breast tumors, others
GFAP	EP672Y	Glial fibrillary acidic protein
GH	Polyclonal	Growth hormone, pituitary adenoma
Glucagon	Polyclonal	Islet cell tumor
GLUT-1	Polyclonal	Glucose transporter type I, overexpressed in mesothelioma and other cancers
Glycophorin-A	GA-R2	Erythroid cells
Glypican-3	1G12	GPC3, Hepatocellular Carcinoma, Germ Cell Tumors
Granzyme B	Polyclonal	Cytotoxic T-lymphocytes and NK cells
H. pylori	Polyclonal	Distinguish H. pylori from other types of curved bacteria
HBCAg	Polyclonal	Hepatitis B core antigen
HBME-1	HBME-1	Mesothelial cells, adenocarcinoma subset
HBsAg	S1-210	Hepatitis B surface antigen
HCG	Polyclonal	Human chorionic gonadotropin; germ cell tumors
HCL	DBA.44	Hairy cell leukemia, other B-cells (marginal zone)
Hemoglobin A (Hgb)	EPR3608	Human hemoglobins A, A2, F
Hepatocyte	OCH1E5	Specific for normal and neoplastic hepatocytes
Her2neu/c-erb-2	4B5	C-erb-2 oncoprotein
HHV8	LN35	Human herpesvirus 8, Kaposi's sarcoma, primary effusion lymphoma
HLA-DR	LN3	B-cells, activated T-cells, monocytes
HPL	Polyclonal	Human placental lactogen
HSV I	Polyclonal	Herpes simplex virus
HSV II	Polyclonal	Herpes simplex virus
HSV I/II	Polyclonal	Herpes simplex virus
hTERT	SCD-A7	Human telomerase reverse transcriptase, upregulated in bladder carcinoma
IgA	Polyclonal	Immunoglobulin A heavy chain
IgD	Polyclonal	Immunoglobulin D heavy chain
IgG	Polyclonal	Immunoglobulin G heavy chain
IgG4	MRQ-44	IgG subtype, IgG4-related sclerosing disease; ordered in conjunction with IgG
IgM	Polyclonal	Immunoglobulin M heavy chain
Inhibin	R1	Adrenal cortical and sex cord stromal tumors
Insulin	Polyclonal	Islet Cell Tumor
Kappa	L1C1	Immunoglobulin light chain kappa
Ki-67	30-9	Proliferation marker
Ksp-cadherin	MRQ-33	Overexpressed in renal oncocytoma and chromophobe carcinoma
Lambda	Lamb14	Immoglobulin light chain lambda
Laminin	Polyclonal	Basement membrane laminin
Lewis Y	F3	Blood group related antigen
LH	Polyclonal	Luteinizing hormone, pituitary
Macrophage	HAM56	Reacts with tangible macrophages, interdigitating macrophages of lymph nodes and tissue macrophages.
Mammaglobin	31A5	Breast terminal duct and lobular epithelium
Melan A	A103	Melanoma-associated marker, adrenocortical tumors
Melanosome	HMB45	Melanoma-associated marker; angiomyolipomas
Mesothelin	5B2	Mesotheliomas, non-mucinous ovarian and squamous tumors of esophagus and cervix
MET	SP44	Transmembrane tyrosine kinase receptor
MITF	C5/D5	Microphthalmia transcription factor, melanoma, melanocytes
MLH1	M1	Mismatch repair protein
MSH2	G219-1129	Mismatch repair protein
MSH6	44	Mismatch repair protein
MUC1	H23	Membrane bound, glycosylated phosphoprotein MUC1
MUC2	MRQ-18	Gastrointestinal, other rare carcinomas
MUC4	8G7	Pancreatic carcinoma marker, low-grade fibromyxoid sarcoma
MUC5AC	MRQ-19	Pancreatic adenocarcinoma, other carcinomas
MUC6	MRQ-20	High molecular weight glycoprotein, preferentially expressed in GI and pancreaticobiliary
MUM-1	MRQ-43	Late stage B-cells, plasma cells, activated T-cells
Muramidase	Polyclonal	Lysozyme, monocytic cells
MYC	Y69	Used in the characterization of lymphoma
Myeloperoxidase	Polyclonal	Myeloperoxidase
Myogenin	F5D	Muscle marker, positive in rhabdomyosarcoma
Myoglobin	Polyclonal	Striated and cardiac muscle
Napsin A	MRQ-60	Type II pneumocytes, pulmonary adenocarcinoma
NF	2F11	Neurofilament
NKX3.1	EP356	A sensitive and specific tissue marker of prostate adenocarcinoma and can help distinguish the disease from urothelial carcinoma
NSE	BBS/NC/VI-H14	Neuron-specific enolase
OCT2	MRQ-2	B-cell transcription factor
OCT 3/4	MRQ-10	Germ cell tumors
p16	E6H4	Cyclin-dependent kinase inhibitor; CIN/high grade SIL
P21	DCS-60.2	Cyclin-dependent kinase inhibitor
p40	Polyclonal	Amino acids 5-17 of p40; Most frequently used marker for lung squamous cell carcinoma
p53	DO-7	Tumor suppressor gene mutation
p57	KP10	Inhibitor of G1 cyclin complex/negative regulator of cell proliferation
p63	4A4	Prostatic basal cells, breast myoepithelial cell
p120 Catenin	MRQ-5	Intracytoplasmic Accumulation in Lobular Mammary Carcinoma
P504S	504R-18	Prostatic carcinoma and high grade PIN
Parvovirus B19	R92F6	Parvovirus B19
PAX-2	Polyclonal	Renal cell carcinoma subsets, Wilm's tumor
PAX-5	SP34	Expressed primarily in pro-, pre-, and mature B-cells and Hodgkin cells

Immunohistochemistry (IHC)

ANTIBODY	CLONE	DESCRIPTION
PAX-8	MRQ-50	Ovarian serous carcinoma, thyroid and renal carcinoma, seminoma
PD1	MRQ-22	CD28 Receptor Family; Angioimmunoblastic Lymphoma
PD-L1	22C3	Programmed cell death ligand 1; Companion diagnostic for Keytruda
PD-L1	28-8	Programmed cell death ligand 1; Complementary diagnostic for Opdivo
PD-L1	EIL3N	Programmed cell death ligand 1; Complementary diagnostic for other therapies/tumor types
PD-L1	SP142	Programmed cell death ligand 1; Complementary diagnostic for Tecentriq
Perforin	MRQ-23	NK cells, activated CD8+ T-cells
PLAP	NB10	Placental alkaline phosphatase; germ cell tumors and adenocarcinoma subset
PMS2	EPR3947	Mismatch Repair Protein
Podoplanin	D2-40	Lymphatic endothelium
PODXL-1	4F10	Podocalyxin-like protein 1, ampullary and pancreatic adenocarcinoma subset
PR	1.00E+02	Progesterone receptor
Prolactin	Polyclonal	Pituitary hormone
PSA	ER-PR8	Prostate specific antigen
PSAP/HPAP	PA5E/4LJ	Human prostatic acid phosphatase
PSMA	EP192	Prostate specific membrane antigen, overexpressed in prostate carcinoma
PTH	MRQ-31	Parathyroid hormone
Renal cell	PN-15	Renal epithelial cell origin
S100	Polyclonal	Neural crest derivatives
SALL4	6.00E+03	Germ cell tumors, including yolk sac tumors, embryonal carcinoma, seminoma
SATB2	EP281	Binds to DNA, at nuclear matrix- or scaffold-associated regions
SMA	1A4	Smooth muscle actin, myoepithelial and myofibroblastic cells
SMM-HWC	SMMS-1	Smooth-muscle myosin heavy-chain
Somatostatin	Polyclonal	Islet cell tumors
SOX-10	EP268	Melanoma marker (conventional, spindled, desmoplastic); also positive in schwannoma and neurofibroma
Spirochete	N/A	Treponema Pallidum (syphilis)
Surfactant	3.20E+13	Lung non-small cell carcinomas
Synaptophysin	SP11	Neural and endocrine tissues
TAG-72	B72.3	Simple Epithelium, Adenocarcinoma
TCL-1	MRQ-7	T-cell prollymphocytic marker
TdT	Polyclonal	Terminal deoxynucleotidyl transferase, precursor B-cells and thymocytes
TFE3	MRQ-37	Xp11.2 translocation, alveolar soft part sarcoma, renal carcinoma subset
Thrombomodulin	1009	Mesothelioma, some epithelial tumors
Thyroglobulin	2H11+6E1	Thyroglobulin
TIA-1	TIA-1	Stress granules, cytotoxic granules of resting & activated T-cells
Toxoplasma	Polyclonal	Toxoplasma gondii protozoa
TRAP	9C5	Tartrate Resistant Acid Phosphatase
Tryptase	G3	Mast cell tryptase, mast cells
TSH	Polyclonal	Thyroid stimulating hormone, subset of pituitary tumors
TTF1	8G7G3/1	Thyroid Transcription Factor-1; thyroid and lung tumors
Tyrosinase	T311	Melanoma
Uroplakin	AU1	Urothelial carcinoma
Villin	CWWB1	Gastrointestinal mucosal epithelium brush border
Vimentin	V9	Cytoplasmic intermediate filament; mesenchymal cells and some epithelial tumors
Wilm's Tumor (WT-1)	6F-H2	Desmoplastic SRCT, methothelioma, Mullerian tumors, Wilm's tumor

In Situ Hybridization (ISH)

ANTIBODY	CLONE	DESCRIPTION
EBER	ISH PROBE	Inform EBER probe for Epstein-Barr virus
HPV II 6/11 Low Risk	ISH PROBE	Human papillomavirus types 6 and 11
HPV III 16/18/31 High Risk	ISH PROBE	Human papillomavirus types 16, 18 and 31
Kappa-ISH	ISH	ISH Immunoglobulin light chain kappa
Lambda-ISH	ISH	ISH Immunoglobulin light chain lambda

Flow Cytometry

TEST CODE	FLOW CYTOMETRY PANEL
5535-0 (Global)	Lymphoproliferative Disorder Analysis
5536-8 (TC Only)	CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD11c, CD19, CD20, CD23, CD38, CD45, CD56, CD57, FMC-7, Kappa, Lambda
5515-2 (Global)	Myeloid/Lymphoid Disorders and Acute Leukemia Analysis
5516-0 (TC Only)	CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD11b, CD11c, CD13, CD14, CD16, CD19, CD20, CD22, CD23, CD33, CD34, CD38, CD45, CD56, CD57, CD64, CD117, FMC-7, HLA-DR, Kappa, Lambda
5573-1 (Global)	Plasma Cell Analysis
5574-9 (TC Only)	CD19, CD20, CD38, CD45, CD56, CD117, CD138, clgA, clgG, clgM, slgM, cKappa, sKappa, cLambda, sLambda
5564-0 (Global)	PNH Panel
5185-4 (TC Only)	CD14, CD15, CD24, CD45, CD59, CD64, FLAER, Glycophorin-A
5155-7 (Global)	Residual CLL/SLL
J496-1 (TC Only)	CD5, CD11c, CD19, CD20, CD23, CD45, CD52, Kappa, Lambda
B271-8 (Global)	Myeloid & Lymphoid Analysis (Short Panel)
B338-5 (TC Only)	CD3, CD4, CD5, CD8, CD10, CD13, CD19, CD33, CD34, CD117, HLA-DR, CD45, Kappa, Lambda