



00000001



4142 S Mingo Rd. Tulsa, OK 74146 (918) 417-6400 WWW.PLAPATH.COM (833) PLA-PATH

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Completed by: _____

PATIENT INFORMATION Please Provide All Information below (Name on Requisition MUST Match Name on Specimen EXACTLY!)
FOR LAB USE ONLY
LAB ID:
RCV'D TIME/DATE:
SPECIMENS RCV'D
Tissue
Nail(s)
Hair
Scrapings
Fluid
Sterile container, no additive
Sterile container with moistened gauze
Sterile container with saline
10% buffered formalin container
DIF: Michel's media or Zeus solution
ExCell Plus™ container
eSwab
RPMI Preservative

Contact Phone Number:
Date of Service/Collected Date:
Case Number:
Tissue Type:
Block Number:
Fax Number for Patient Report:
Pertinent History
[] Inpatient [] Outpatient [] Outreach Patient
Billing: Include patient insurance face sheet for direct patient bill, or mark client bill for facility billing.
RETURN HISTOLOGY TECHNICAL ONLY SLIDES FOR INTERP AND BLOCKS TO :
PATHOLOGY/ HISTOLOGY
Name/Attn:
Address:
City/State/Zip:

Slides will be returned within 48 hours, blocks will be returned within 7-14 days.
IHC and Special Stains Technical Only ICD 10
[] ER/PR Technical Only 88342.TCx2
[]
[]
[]
IHC and Special Stains with Interpretation ICD 10
[]
[]
[]
[] Other:

Solid Tumor, Molecular Testing
Lung Panel NGS PDL-1 (28-8 pharmDX by IHC w/interp Opdivo)
Melanoma Panel NGS PDL-1 (SP263 IHC with Tumor Proportion Score (TPS) Tecentriq and cemiplimab-rwlc Libtayo
Solid Tumor Panel NGS
Colon Panel NGS MMR by IHC
PDL-1 (22C3 IHC with Tumor Proportion Score (TPS)Keytruda
PDL-1 (22C3 IHC with Combined Positive Score (CPS) Keytruda

Physician authorizes PLA to perform all appropriate laboratory services related to this specimen(s) and to bill payor/patient as directed.

ORDER NAME	ANTIBODY	SPECIFICITY	NOTES
ACTIN HHF 35	ACTIN MUSCLE SPECIFIC (HHF 35)	ACTIN MYOFILAMENTS	
ACTIN 1A4	ACTIN SMOOTH MUSCLE (1A4)	SMOOTH MUSCLE ACTIN--CAN DIFFERENTIATE SMOOTH MUSCLE FROM SKELETAL MUSCLE IN TUMORS	
ADIPOPHILIN	ADIPOPHILIN (RABBIT POLYCLONAL/CELL MARQUE)	LIPID STORAGE DROPLETS; HELPFUL IN IDENTIFICATION TUMORS WITH SEBACEOUS DIFFERENTIATION INCLUDING SEBACEOUS CARCINOMAS.	TUMORS WITH SEBACEOUS DIFFERENTIATION
ALK1	ALK1	NPM-ALK CHIMERIC PROTEIN IN SUBSET OF ALCL	Pos in subset of ALCL
AFP	ALPHA FETO PROTEIN	ALPHA FETOPROTEIN	
AMCAR	AMACR RASEMASE (P5045)	ENZYME OVEREXPRESSED IN MALIGNANT PROSTATE TISSUE; MAY BE POS IN NEPHROGENIC ADENOMA (AJSP 2004);	Positive in High grade PIN and prostatic adenocarcinoma.
Androgen Receptor (SP107)	ANDROGEN RECEPTOR (SP107) RAB MONO	ANDROGEN RECEPTOR (nuclear stain); *Expressed variably by both ER / PR+ as well as ER / PR- breast cancers; Most useful for triple negative breast cancer, luminal androgen subtype; Predicts favorable prognosis in early stage disease based on current studies; Salivary Duct adenoca generally positive.	Expressed variably by both ER / PR+ as well as ER / PR- breast cancers; Most useful for triple negative breast cancer, luminal androgen subtype; Predicts favorable prognosis in early stage disease based on current studies; Salivary Duct adenoca generally positive.
ANNEXIN	ANNEXIN I (CLONE 29)	HAIRY CELL LEUKEMIA, SOME T CELLS.	HAIRY CELL LEUKEMIA
ARG1	ARG1 (SP156 RABBIT MONO)	Identification of HCC	MORE SENSITIVE THAN HEPAR1 IN IDENTIFICATION OF HIGHER GRADE HCC.
ATRX GENE	ATRX GENE (POLYCLONAL SIGMA)	LOSS OF EXPRESSION PREDICTS MUTATION OF ATRX REMODELING GENES;CLOSELY ASSOCIATED WITH IDH1 MUT AND TP53 MUT	LOSS OF EXPRESSION ASSOCIATED WITH GLIAL NEOPLASM; LOSS NOT SEEN IN OLIGO.
B72.3	B72.3 (TAG-72)	ONCOGENIC PROTEIN SEEN PRIMARILY IN ADENOCARCINOMA	Positive in greater than 80% of adenocarcinomas from a variety of organs including lung and papillary serous tumors; positive in less than 3% of mesothelioma's; still one of the best negative markers for mesothelioma.
BAP1	BAP1 (MONOCLONAL SANTA CRUZ)	DEFICIENT IN CUTANEOUS "BAPOMAS", SOME MESOTHELIOMAS, AND INTRAHEPATIC CHOLANGIOCA	DEFICIENT IN CUTANEOUS "BAPOMAS", SOME MESOTHELIOMAS, AND INTRAHEPATIC CHOLANGIOCA
BCL 6	BCL 6	FOLLICULAR DERIVED LYMPHOID CELLS	positive in FCC tumors; can be useful to subcategorize lg cell lymphomas.
BCL-2	bcl-2 (bcl-2/100/D5)	BCL-2 OVEREXPRESSING CELLS	helpful in differentiation follicular hyperplasia from follicular lymphoma; when pos, poorer prognosis in large cell lymphoma
BER-EP4	BER-EP4	MESOTHELIOMA PANEL, POS IN ADENOCA, BCC+, SQ CELL CA NEG.	Nearly all pulmonary adenocarcinomas and serous carcinomas are positive; 35-50% of renal cell carcinomas are positive. Up to one third of mesothelioma can show weak, focal positivity however. Weak, focal staining therefore less predictive.
BETA-CATENIN	BETA-CATENIN (POLYCLONAL CELL MARQUE)	BETA CATENIN	WHEN MUTATED (E.G. FIBROMATOSIS) DEMONSTRATES NUCLEAR ACCUMULATION. USEFUL TO DIFFERENTIATE FIBROMATOSIS FROM SCARRING PROCESSES.
BOB-1	BOB-1 (POLYCLONAL SANTA CRUZ)	B CELL TRANSCRIPTIONAL COACTIVATOR; EXPRESSED VERY EARLY IN B CELL DIFFERENTIATION (LIKE PAX5)	USEFUL IN RITUXIMAB TREATED B CELL LYMPHOMAS AS WELL AS PLASMABLASTIC AND EFFUSION RELATED TUMORS.
C4d	C4d POLYCLONAL	C4d SPLIT PRODUCT; POS ON ENDOTHELIAL CELL IN HUMORAL RENAL ALLOGRAFT REJECTION	
CA IX	CA IX (CARBONIC ANHYDRASE IX)	CLEAR CELL RCC; NEG IN CHROMOPHOBE CA; INTRAHEPATIC CHOLANGIOCA (ICC)	
CALCITONIN	CALCITONIN	CALCITONIN	
CALDESMON	CALDESMON (h-CDI)	h-caldesmon; smooth muscle and smooth muscle tumors.	
CAPONIN	CALPONIN (DAKO)	SMOOTH MUSCLE CELLS	SMOOTH MUSCLE CELLS
CALRETININ	CALRETININ (RECOMBINANT HUMAN)	CALRETININ (CALCIUM BINDING PROTEIN EXPRESSED IN MESOTHELIOMA); GRANULOSA CELL TUMORS AND OTHER SEX CORD STROMAL TUMORS	POS IN MESOTHELIOMA; Positive in both epithelioid and in spindle cell mesothelioma's; up to 6% of undifferentiated carcinomas may be positive; 6-10% of the lung cancers may be positive; 31-38% of serous carcinomas may be positive; up to 4% of renal cell carcinomas are positive; lung squamous cell carcinoma can be positive (up to 39%).
CD 001A	CD 001A	MHC CLASS I GLYCOPROTEIN . CORTICAL THYMOCTYES, LANGERHANS CELLS, INTERDIGITATING RETICULUM CELLS	
CD 002	CD 002 (LFA-2)	MAJORITY OF T CELLS IN PERIPHERAL LYMPHOID TISSUE, NK CELLS, CORTICAL THYMOCTYES	
CD 003	CD 003 (RAB CLONE 2GV6)	T CELLS	pan T cell marker
CD 004	CD 004 (IF6)	MOUSE	
CD 005	CD 005 (CD5/54/F6)	CD5 POS T CELLS, SUBSET OF B CELLS	coexpressed in SLL, and Mantle cell lymphoma; when present in large cell lymphoma considered adverse prognostic feature.
CD 007	CD 007 (CD7-272)	CD 7 POS T CELLS AND NK CELLS	
CD 008	CD 008 (1A5)	MOUSE	
CD 010	CD 010 (56C6)	CALLA, FOLLICULAR CENTER CELLS, LYMPHOID PROGENITOR CELLS, BURKITT	Positive in FCC tumors (both small and lg cell type tumors); pos in renal cell ca and hepatocellular ca, endometrial cell ca, and prostate ca.
CD 015	CD 015 (C3D-1)	R.S. CELLS, GRANULOCYTES, EPITHELIAL TUMORS	70-75% of lung adenocarcinomas positive; 30-60% serous carcinomas positive; mesothelioma's are negative.
CD 019	CD 019	CD19	
CD 020	CD 020 (L26)	B CELLS; RENAL CELL CA; HCC; MYOEPITHELIAL MARKER	B CELLS; RENAL CELL CA; HCC; MYOEPITHELIAL MARKER
CD 021	CD 021 (IF8)	CD21 RECEPTOR, FDC MESHWORK IN GERMINAL CENTERS	C2D RECEPTOR, FDC MESHWORK IN GERMINAL CENTERS
CD 023	CD 023 (1B12)	B CELL SUBSET, POS IN SLL, NEG IN MANTLE CELL	tends to be pos in SLL and neg in Mantle Cell
CD 025	CD 025 (4C9)	INTERLEUKIN-2 RECEPTOR	
CD 030	CD 030 (Ki-1)	R.S. CELLS, Ki 1 LYMPHOMAS	
CD 031	CD 031 (IC/70A) CELL MARQUE	ENDOTHELIAL CELLS AND THEIR TUMORS	
CD 034 (BLASTS)	CD 034 (HEMATOLYMPHOID BLASTS)	HEMATOLYMPHOID STEM CELLS	
CD 034 (SOFT TISSUE)	CD 034 (SOFT TISSUE)	ENDOTHELIAL CELLS; SUBSET OF SOFT TISSUE TUMORS	

ORDER NAME	ANTIBODY	SPECIFICITY	NOTES
CD 043	CD 043 (L60)	T CELLS, IMMATURE GRANULOCYTES, SOME B CELL LYMPHO	coexpressed in SLL, and Mantle cell lymphoma
CD 045	CD 045 (LCA)	LEUKOCYTES	
CD 056	CD 056 (1B6)	NCAM SEEN IN NEUROBLASTOMA, NK TYPE T CELL LYMPHOMA, NEUROENDOCRINE TUMORS;	SENSITIVE MARKER FOR SMALL CELL CA.; NEG IN PAP CA OF THYROID (DIAGNOSTIC PATH 2008);
CD 057	CD 057 (NK-1; LEU 7)	SENSITIVE MARKER FOR SMALL CELL UNDIFF CA.	
CD 061	CD 061 MEGAKARYOCYTES	SUBSET OF CD8 T CELL; NK CELLS; NEUROENDOCRINE TUMORS	CD57 LYMPHOCYTES TYPICALLY SURROUND CD20 POS L&H CELLS IN LPHD
CD 063	CD 063 (NK1/C3) SANTA CRUZ	MEGAKARYOCYTES	
CD 068	CD 068 (PG-M1 DAKO)	MOUSE MONOCLONAL; CYTOPLASMIC STAINING PRESENT IN : CELLULAR NEUROTHEKEOMA; ON PLATELETS, MONOCYTES, AND MACROPHAGES	CELLULAR NEUROTHEKEOMA
CD 071	CD 071 (MRQ-49)	MACROPHAGE RESTRICTED FORM OF THE CD68 ANTIGEN WHICH IS A LYSOSOMAL GLYCOPROTEIN, MACROPHAGES AND MONOCYTES AND OSTEOCLASTS ARE POS; MYELOID CELLS USUALLY ARE NEGATIVE. M4 AND M5 LEUKEMIAS ARE POS, BUT M1-3 ARE NEG; 10% OF MELANOMAS WERE POS.	
CD 079A	CD 079A (11E3)	ERYTHROID PRECURSORS	ERYTHROID PRECURSERS
CD 099	CD 099 (HO36-1.1)	B CELL ANTIGEN. PRESENT ON PLASMACYTOID TUMORS AS WELL	
CD 117	CD 117 (c-kit DAKO A4502)	EWINGS SARCOMA/PNET, LYMPHOBLASTS, THYMOCYTES, SOLITARY FIB TUM; also positive in wide variety of acute myeloid leukemia's (not just TDT positive ones); may be quenched somewhat by decalcification.	
CD 138	CD 138 (B-B4) SEROTEC	TYROSINE KINASE RECEPTOR C-KIT GENE PRODUCT. MAST CELLS, GIST TUMORS, GLIAL CELLS, BREAST DUCT CELLS, SEMINOMA.	Plasma cells and plasma cell tumors
CD 163	CD 163 (10D6) ANTI MACROPHAGE	PLASMA CELLS AND PLASMA CELL TUMORS. SOME EPITHELIAL AND ENDOTHELIAL CELLS	
CD X2	CD X2 (CDX2-88)	MONOCYTE/MACROPHAGES; GREATER SPECIFICITY COMPARED TO CD68 AS MARKER OF DISORDERS OF MONOCYTE/MACROPHAGE ORIGIN; NOT SENSITIVE FOR DX OF MONOCYTIC DIFFERENTIATION IN AML	
CEAm	CEAm (TF-3H8-1)	NUCLEAR TRANSCRIPTION FACTOR FOR INTESTINAL CELLS AND TUMORS; COLON AND BLADDER ADENOMA, SOME OVARIAN MUCINOUS, STOMACH; AND PANCREAS. HAS BEEN REPORTED IN SOME COLLOID LUNG CANCERS (AJSP 2004); EXPRESSION NOT LIMITED TO GI NEUROENDOCRINE TUMORS (AJSP 2004)	NUCLEAR STAIN; COLON CA, BLADDER ADENOCA, MOST OVARIAN MUCINOUS ADENOCA, SOME STOMACH AND PANC. CAN ALSO BE POS IN CERVICAL ADENOCA (AJSP 2008)
CEAp	CEAp	EPITHELIAL CELLS	80% of lung adenocarcinomas positive; mesothelioma is almost invariably negative; one of the best negative markers for mesothelioma. Serous carcinomas of ovary often negative.
CHROMOGRANIN A	CHROMOGRANIN A	CEA, BILE CANALICULI	(Polyclonal) shows a "canalicular" pattern of positivity in hepatocellular carcinoma
CLUSTERIN	CLUSTERIN (APOLIPOPROTEIN J)		
CMV	CMV (DDG9/CCH2)	NEUROENDOCRINE SECRETORY GRANULES	
c-MYC	c-MYC (Y69 RAB MONO VENTANA)	POS IN 98% ALCL, NEG IN HD; 100% SENSITIVE FOR FOLLICULAR DENDRITIC CELL TUMORS (MOD PATH 2005).	
COLLAGEN TYPE IV	COLLAGEN TYPE IV (CIV-22 DAKO)	CMV	
CYCLIN D1	CYCLIN D1 (RABBIT MONOCLONAL CLONE SP4)	NUCLEAR STAIN. DIRECTED AGAINST TRANSCRIPTION FACTOR OF CMYC. > OR = 40% STAIN CONSIDERED POSITIVE	
CYSTIC DISEASE PROTEIN-15	CYSTIC DISEASE PROTEIN-15 (GCDFP-15/BRST II)	TYPE IV COLLAGEN (BASAL LAMINA)	
D2-40	D2-40 (SIGNET)	CYCLIN D1 PROTEIN KINASE	expression limited to mantle cell lymphoma
DESMIN	DESMIN (NCL-DE-R-11)	MAJORITY OF BREAST CA (60-70%); ALSO POS IN SALIVARY GLAND CA, SWEAT GLAND CA.	
DOG1	DOG1 (Clone SP31)	Identifies onco-fetal M2A antigen. Lymphatic endothelial cells; Epithelioid malignant mesothelioma; germ cell tumors. Weak membranous positivity has been seen in 15 % of serous carcinomas. Up to 50% of ovarian cancers may be positive. Up to 30% of lung cancers may show weak positivity.	Positive in epithelioid mesothelioma. Almost always negative in lung adenocarcinoma; maybe expressed in squamous and serous carcinomas.
BCL6/CD3 DS	DOUBLE STAIN (BCL6) BRN/ (CD3) RED	INTERMEDIATE FILAMENT IN MUSCLE TISSUE/TUMORS	
KAPPA/LAMBDA DS	DOUBLE STAIN (KAPPA (RED)/LAMBDA (BRN))	SENSITIVE MARKER OF GIST	MORE SENSITIVE AND SPECIFIC THAN CD117 IN IDENTIFICATION OF GIST.
TTF/NAPSIN DS	DOUBLE STAIN ADENOCARCINOMA (TTF/NAPSIN)		
KERCOCK/DESMIN DS	DOUBLE STAIN BLADDER CA INVASION KERCOCK (RED)/DESMIN (BRN)		
HCMYO/KER DS	DOUBLE STAIN BREAST MICROINVASION (HCMYO/KER)		
P40/CK5/6 DS	DOUBLE STAIN LUNG SQUAMOUS CELL (P40/CK5/6)		
MELAN A/Ki-67 DS	DOUBLE STAIN MELAN A (RED)/ KI67 (BRN)		
MELAN A/SOX10 DS	DOUBLE STAIN MELANOMA SENTINEL LN (MELAN A/SOX10)		
PAX5/ANNEXIN DS	DOUBLE STAIN PAX5 (BRN)/ANNEXIN (RED)		
PAX5/CD3 DS	DOUBLE STAIN PAX5 (BRN)/CD3 (RED)		
PAX5/CD43 DS	DOUBLE STAIN PAX5 (BRN)/CD43 (RD)		
HMKER/AMACR DS	DOUBLE STAIN PROSTATE CA EVAL HMKER/AMACR		
CD20/CD3 DS	DOUBLE STAIN; CD20 (BRN)/CD3 (RED)		
E.M.A	E.M.A. (E29)		
EBER	EBSTEIN BAR VIRUS EARLY RNA (EBER)		
E-CADHERIN	E-CADHERIN (ECH-6)		
ERG	ERG (EP111) CELL MARQUE (NUCLEAR STAIN)		
ER	ESTROGEN RECEPTOR (RAB MONO SP1)		
FACTOR VIII	FACTOR VIII		

ORDER NAME	ANTIBODY	SPECIFICITY	NOTES
FACTOR XIII	FACTOR XIII (CUB 7402)	TISSUE TRANGLUTAMINASE, SM MUSC, DERMAL DENDROCYTES	
GASTRIN	GASTRIN (POLYCLONAL)	ANTRAL G CELLS	
GATA3	GATA3 (MOUSE CLONE L50-823 CELL MARQUE)	UROTHELIAL CA; BREAST CA; PARATHYROID; CAN ALSO BE POS IN PANC ADENOCA, SQUAMOUS CA OF SKIN; SUBSET OF T LYMPHS	73% OF UROTHELIAL CA POS; 70% BREAST CA POS; 99% PARATHYROID CA POS; NEG IN LUNG, RENAL, PROSTATE CA.
GFAP	GFAP	ASTROCYTIC GFAP	
GRANZUME B	GRANZYME B (GRB-7 DAKO MONOCLONAL)	ACTIVATED HUMAN CYTOTOXIC T CELLS AND NK CELLS AND THEIR NEOPLASMS.	
HBME-1	HBME-1 (Anti human mesothelial) DAKO	POSITIVE IN MAJORITY OF THYROID MALIGNANCIES	Mesothelial marker
HCG	HCG	PLACENTAL TROPHOBLASTIC TISSUE	
H PYLORI	HELICOBACTER PYLORI	HELICOBACTER PYLORI	
HEPATOCTYTE	HEPATOCTYTE (OCH1E5) DAKO	Hepatocytes and tumors derived from hepatocytes; Gastric ca may be pos (particularly high grade tumors and signet ring ca) Mod Path 2003; Rare bronchogenic tumors may be pos (2004)	Useful in distinguishing primary from metastatic tumors in liver.
HER 2	HER 2 (4B5)	c-erB-2 PROTEIN	
HSV I AND II	HERPES SIMPLEX VIRUS I AND II	HERPES SIMPLEX	
HMB-45	HMB-45	GLYCOCONJUGATE PRESENT IN MELANOSOMES; MELANOMA, DOES NOT SHOW SAME SENSITIVITY AS MELAN A.	
HPV Type 8	HUMAN HERPESVIRUS (type 8) [13B10]	Latent nuclear antigen of HHV8; Very high sensitivity and specificity for Kaposi's sarcoma.	
HPL	HUMAN PLACENTAL LACTOGEN (HPL) DAKO	Human placental lactogen; produced by syncytiotrophoblastic cells in normal tissues and neoplasms.	
IDH1	IDH1 (HISTONOVA R132H)	MUTATED ISOCITRATE DEHYDROGENASE.	USUALLY POS IN GR II & III DIFFUSE ASTROCYTOMA; OLIGO; PROGNOSTIC INFO IN GBM (Capper et al AJSP 2010; 34: 1199)
IgD	IgD	IgD CONTAINING PLASMA CELLS	USEFUL IN IDENTIFICATION OF NLPHD.
IgG	IgG (POLYCLONAL REAGENT)	IgG	Heavy chain restriction
IgG4	IgG4	IgG4 BEARING PLASMA CELLS; AUTOIMMUNE PANCREATITIS	
IgM	IgM (POLYCLONAL REAGENT)	Heavy chain	Heavy chain restriction
INHIBIN ALPHA	INHIBIN ALPHA	STERIOD SECRETING TUMORS AND TISSUES	
INI1	INI1 (SMARCB1) NUCLEAR STAIN	DEFICIENT IN EPITHELOID SARCOMA, ATYPICAL TERATOID/RHABDOID TMR, MANY MYOEPITHELIAL TUMORS, EPITHELOID MPNST (67%); SINONASAL BASALOID CARCINOMA	DEFICIENT IN EPITHELOID SARCOMA, ATYPICAL TERATOID/RHABDOID TMR, MANY MYOEPITHELIAL TUMORS, EPITHELOID MPNST (67%); SINONASAL BASALOID CARCINOMA
KAPPA	KAPPA	KAPPA	light chain
KAPPA mRNA	KAPPA mRNA	Cytoplasmic kappa mRNA	
KERATIN LMW CK 08 (CAM 5.2)	KERATIN LMW CK 08 (CAM 5.2)	CYTOKERATIN MOLL #8, 18, AND 19 LOW MOLECULAR WEIGHT KERATIN; SIMPLE EPITHELIA (GLANDS, HEPATOCYTES ETC.)	May be useful with ae1/ae3, and HMW ker as an epithelial "screen"
KERATIN (AE1/AE3/PCK26)	KERATIN (AE1/AE3/PCK26)	BROAD SPECTRUM KERATIN SCREENING	USED ALONE MAY MISS CARCINOMAS LMW KER ONLY; PREFER KERCOCKTAIL FOR KERATIN SCREENING.
KERATIN BOV MUZ	KERATIN BOV MUZ (WIDE SPECTRUM)	WIDE SPECTRUM SCREENING FOR I.F. KERATIN	
KERATIN CK 07 (OV-TL)	KERATIN CK 07 (OV-TL) CELL MARQUE	DUCTAL AND GLANDULAR EPITHELIUM (PAGET'S CELLS)	NEUROENDOCRINE TUMORS CK7 NEG/20 NEG; 10-45% OF BCC POS; >90% SEBACEOUS CA ARE POS.
KERATIN CK 10 (DE-K10)	KERATIN CK 10 (DE-K10)	SUPRABASAL LAYER OF KERATINIZING STRATIFIED EPITHELIA	
KERATIN CK 19	KERATIN CK 19 (CELL MARQUE)	SELECTIVE EXPRESSION IN PAP CA OF THYROID	
KERATIN CK 20 (Ks20.8)	KERATIN CK 20 (Ks20.8)	INTESTINAL EPITHELIUM ETC., MERKLE CELL POS.	CAN DISTINGUISH MET SMALL CELL FROM MERKLE CELL.
KERATIN CK 5/6 (D5/16B4)	KERATIN CK 5/6 (D5/16B4)	MESOTHELIAL CELLS + SQUAMOUS CELL CA + ; MOST ADENOCA NEG.; A SUBSET OF BREAST CA ("BASALOID") CAN ALSO BE POS, ASSOCIATED WITH POORER PROGNOSIS.	Epithelioid mesotheliomas +, strong positivity in squamous cell ca., may be focal positivity in a small minority of adenocarcinomas. Cutaneous adnexal tumors usually pos while met adeno usually neg. Serous carcinoma is usually positive.
KERATIN HMW (34BE12)	KERATIN HIGH MOLECULAR WT. (34BE12)	HIGH MOLECULAR WEIGHT KERATIN MOLL #1, 10, 5, 14; BASAL CELL LAYER IN BENIGN PROSTATE GLANDS ETC.	May be useful with ae1/ae3 and LMW ker as an epithelial "screen"; POS IN SQ CELL CA, NEG IN SMALL CELL CA
KERCOCKTAIL	KERCOCKTAIL	PANKERATIN COCKTAIL AE1/AE3/CAM5.2 BEST SCREEN FOR HIGH GRADE CA	AE1/3 AND CAM 5.2; BEST SCREEN FOR HIGH GRADE/UNDIFFERENTIATED TUMORS
Ki-67	Ki-67	PRESENT IN CELLS UNDERGOING PROLIFERATION	
LAMBDA	LAMBDA	LAMBDA	light chain
LAMBDA mRNA	LAMBDA mRNA	Cytoplasmic lambda mRNA	
MAMMAGLOBIN	MAMMAGLOBIN (304-1A5)	TUMOR OF MAMMARY ORIGIN.	
MDM2	MDM2 (IF2 ZYMED)	POSITIVE IN ALT-WDLPS and DEDIFFERENTIATED LPS; NEG IN LIPOMA	
MELAN A	MELAN A (A 103)	MELANOMA CELLS, STEROID HORMONE TUMORS	
MLH-1	MLH-1 CELL MARQUE	Mismatch repair protein.	
MOC 31	MOC 31	Recognizes the epithelial cell adhesion molecule (Ep-CAM); A VARIETY OF ADENOCARCINOMAS. MESOTHELIOAS ARE NEG	Nearly all lung adenocarcinomas and serous carcinomas of ovary are strongly positive with this antibody; 5-10% of epithelioid mesothelioma's may be positive. Renal cell carcinoma may be positive.
MSH-2	MSH-2 CELL MARQUE	Mismatch repair protein.	
MSH-6	MSH-6	MISMATCH REPAIR PROTEIN	
MUC4	MUC4 (8G7)	VERY SENSITIVE FOR LG FIBROMYXOID SARC, SCLEROSING EPITHELOID FIBROSARC; IN SALIVARY GLAND, MASC'S ARE POS; A VARIETY OF OTHER CARCINOMAS (CHOLANGIO/PANC/COLON/BREAST) ARE ALSO POS.	USE CAUTION IN SCLEROSING FIBROSARC AS SOME CARCINOMAS ARE ALSO MUC4 POS.
MUM-1	MUM-1 (DAKO MUM1P)	ACTIVATED B CELL MARKER; POOR PROGNOSTIC MARKER IN B LG CELL LYMPHOMA	
MYELOPEROXIDASE	MYELOPEROXIDASE	GRANULOCYTES AND MONOCYTES AND THEIR PRECURSERS	
Myogenin MYF-4	MYOGENIN MYF-4 (LEICA BIOSYSTEMS)	RHABDOMYOSARCOMA AND RHABDOID DIFFERENTIATION IN OTHER TUMORS	MYOGENIN
Myosin HC	MYOSIN HEAVY CHAIN	VASCULAR AND VISCERAL SMOOTH MUSCLE, MYOEPITHELIAL CELLS.	

ORDER NAME	ANTIBODY	SPECIFICITY	NOTES
NAPSIN A	NAPSIN A (MONOCLONAL)	POSITIVE IN 83% LUNG ADENOCA; NEG IN SQUAMOUMS AND NEUROENDORINE. ALSO POS IN PAP THYROID AND PAP RENAL CELL CA; POS IN CLEAR CELL CA. ALSO POS IN CLEAR CELL CA OF OVARY/UTERUS	POSITIVE IN 83% LUNG ADENOCA; NEG IN SQUAMOUMS AND NEUROENDORINE. ALSO POS IN PAP THYROID AND PAP RENAL CELL CA. ALSO POS IN UTERINE CLEAR CELL CA (AJSP FADARE ET AL 2014).
NEUROFILAMENT	NEUROFILAMENT	NEURONS, PERIPHERAL NERVE, NEUROBLASTOMA, NEURONAL	
NKX3	NKX3 (CELL MARQUE)	TUMORS ORIGINATING FROM THE PROSTATE GLAND (NUCLEAR STAIN)	MORE SENSITIVE THAN PROSTEIN.
OCT-2	OCT-2 (POLYCLONAL SANTA CRUZ)	NUCLEAR STAIN; B LYMPHOCYTE SPECIFIC TRANSCRIPTIONAL COACTIVATOR;	USEFUL IN RITUXIMAB TREATED B CELL LYMPHOMAS AS WELL AS PLASMABLASTIC AND EFFUSION RELATED TUMORS.
OCT3/4	OCT3/4	NUCLEAR STAIN; POS IN SEMINOMA AND EMBRYONAL CARCINOMA,	POS IN SEMINOMA AND EMBRYONAL CA; NEG IN UNDFI CA.
OLIG-2	OLIG-2	GLIOMAS AND OLIGODENDROGLIOMAS; NEG IN EPENDYMOMA	
p120 CATENIN	p120 Catenin	Catenin; cytoplasmic in lobular; membranous in ductal ca.	cytoplasmic in lobular; membranous in ductal ca
P16 INK	P16 INK (AB-4;16P04)	PROTEIN KINASE SEEN IN CELLS INFECTED WITH HIGH RISK HPV; POS IN ~80% LSIL AND >99% HSIL AND CANCER; ALSO POS IN ENDOCERV ACIS/ADENOCA.	
p40	p40 (BIOCARE MED)	SELECTIVELY EXPRESSED IN LUNG SQU CELL CA; MORE SPECIFIC THAN P63; ALSO POS IN UROTHELIAL AND MYOEPIHELIAL TUMORS; GOOD MARKER OF MYOEPIHELIAL CELLS (SIMILAR TO P63)	MORE SPECIFIC FOR SQUAMOUMS CELL CA THAN P63; EQUALLY SENSITIVE.
p53	P53 (DO-7)	WILD TYPE AND MUTANT P53 PROTEIN	P53 upregulated in nonpapillary urothelial CIS.
	p57	A PATERNALLY IMPRINTED GENE WHICH IS NEGATIVE IN MOLAR PREGNANCIES.	
p57			complete moles demonstrate loss of both villous stromal and cytotrophoblast p57 staining, in contrast to partial moles and non-molar tissues.
p63	p63 (4A4 + 63P02) (NUCLEAR STAIN)	MYOEPIHELIAL CELL LAYER; BASAL CELL LAYER; SALIVARY GLAND TUMORS; SQUAMOUMS CELL CA; SKIN APPENDAGE TUMOR; BLADDER CA	MYOEPIHELIAL CELL LAYER; BASAL CELL LAYER; SALIVARY GLAND TUMORS; SQUAMOUMS CELL CA; SKIN APPENDAGE TUMOR; BLADDER CA
PTH	PARATHYROID HORMONE (PTH) VECTOR	PARATHYROID SECRETING CELLS (CHIEF CELLS)	
PARVO B19	PARVOVIRUS B19 (R92F6)	HUMAN PARVOVIRUS B19 (VP1 AND VP2 CAPSID PROTEINS)	
PAX 5	PAX 5 (Clone 24)	NUCLEAR STAIN (PAIRED BOX TRANSCRIPTION FACTOR); PRO- PRE- AND MATURE B CELLS BUT NOT PLASMA CELLS; MERKLE CELL AND SMALL CELL CA CAN ALSO BE POSITIVE (AJSP 2005)	MAY BE EXPRESSED IN POORLY DIFFERENTIATED NEUROENDOCRINE TUMORS (AJCP 2006)
PAX-2	PAX-2 (rabbit polyclonal)	RENAL CELLCA; NOT AS SENSITIVE AS PAX8; NEG'IVE IN ENDOCERVICAL AIS.	Renal Cell Ca; not expressed in endocervical AIS.
PAX-8	PAX-8 (POLYCLONAL)	OVARIAN NEOPLASMS (SEROUS, ENDOMETRIOID, AND CLR CELL); POS IN ALL TYPES OF RCC (95%SENSITIVITY); NEPHROGENIC ADENOMA; POSITIVE IN SOME B CELL LYMPHOMAS; THYMIC TUMORS AND THYROID ARE POS	GREAT MAJORITY OF OVARIAN EPITHELIAL NEOPLASMS; BRST CA NEG.; POS IN RENAL CELL TUMORS
PD-1	PD-1 (NAT105) CELL MARQUE	EPILOPE IS PART OF IMMUNE CHECKPOINT PATHWAY. LABELS FOLLICULAR HELPER T CELLS; PRESENT IN ANGIOIMMUNOBLASTIC T CELL LYMHOMA AND RECOGNITION OF NLPHDL.	
PDL1	PDL1 (E1L3N)	CHECKPOINT INHIBITOR (LTD)	
PLAP	PLACENTAL ALK PHOS (PLAP) (RAB MONO SP15))	GERM CELL TUMORS	
PMS2	PMS2 (EPR3947)	MISMATCH REPAIR ANTIBODY	
Polyoma SV40	POLYOMA VIRUS (SV40 ONCOGENE)	LARGE T ANTIGEN OF POLYOMA VIRUS	NUCLEAR STAIN
	Positive in Ganglion cells; useful to r/o Hirsprung's.		
PRAME	PRAME		
PR	PROGESTERONE REC (MOUSE MONOCLONAL CLONE 16)	PROGESTRON RECEPTOR ON TUMORS ETC	
PROSTEIN	PROSTEIN	Benign and malignant prostatic tissue.	Benign and malignant prostatic tissue.
PSA	PSA	PROSTATE SPECIFIC ANTIGEN	
RCC	RCC	RENAL CELL CA; NOT AS SENSITIVE AS PAX8.	NOT AS SENSITIVE AS PAX8
S100 AND MELAN A	S100 AND MELAN A (RECOMMENDED FOR MELANOMA SENT. LN		
S100	S100 PROTEIN	NEURAL CREST DERIVED CELLS, MELANOCYTES, CARTILAGE	
SALL4	SALL4 (SIGMA CLONE 6E3)	Excellent Marker of germ cell tumors (can replace PLAP). POSITIVE in Seminoma, emb ca, and YST.	Excellent broad panel sensitivity for all germ cell tumors.
SATB2	SATB2 (NUCLEAR stain)	NUCLEAR STAIN; LOWER (AS OPPOSED TO UPPER) GI ADENOCARCINOMA, MERKEL CELL CA, RECTAL/APPENDICEAL NET; OSTEOBLASTIC DIFFERENTIATION	HIGHLY SPECIFIC FOR COLORECTAL 1*; ALSO MERKEL CELL CA, APPENDIX, AND OSTEOBLASTIC DIFFERENTIATION IN SOFT TISSUE TUMORS.
SOX 10	SOX 10 (RABBIT POLYCLONAL)	NUCLEAR TRANSCRIPTION FACTOR IN NEURAL CREST DEVELOPMENT. PRESENT IN: MELANOCYTES AND THEIR TUMORS (97% OF USUAL MELANOMAS); DESMOPLASTIC MELANOMA (50%), MALIGNANT PERIPHERAL NERVE SHEATH TUMORS (49%); SCHWANNOMA AND NEUROFIBROMA (>95%). ALSO POS IN MYOEPIHELIOOMA OF SOFT TISSUE (AJSP 2015)	
SOX11	SOX11 (MRQ-56)	SPECIFIC FOR MANTLE CELL LYMPHOMA	SPECIFIC FOR MANTLE CELL LYMPHOMA; NUCLEAR STAIN
SPIROCHETE	SPIROCHETE (Treponema) polyclonal CELL-MARQUE	Treponema pallidum organisms	BE AWARE THAT LOW LEVEL CROSS REACTIVITY IS FREQUENTLY SEEN WITH THIS REAGENT. CAREFULLY EVALUATE THE GLASS SURROUNDING THE TISSUE ELEMENTS ON ALL CASES THAT YOU ARE CONSIDERING TO INTERPRET AS POSITIVE.
STAT6	STAT6 (EP 235 CELL MARQUE)	NUCLEAR POSITIVITY IN SFT/HPC; RARE POSITIVITY IN DEDIFF LIOSARC	NAB2-STAT6 FUSION GENE PRODUCT; HIGHLY SPECIFIC FOR SFT.
SYNAPTOPHYSIN	SYNAPTOPHYSIN	NEUROENDOCRINE CELLS	
TCR BEAF1	TCR BETAF1	HUMAN TCR BETA CHAIN CONSTANT REGION (TCRBC)	
TdT	TdT	IMMATURE T CELLS	
THYROGLOBULIN	THYROGLOBULIN	THYROGLOBULIN	
TLE1	TLE1 (1F5) NUCLEAR STAIN	VERY SENSITIVE IN DX OF SYNOVIAL SARCOMA; 10-20% MPNST (WEAK); 5-10% SFT (WEAK); NEG IN EWINGS SARCOMA	VERY SENSITIVE IN DX OF SYNOVIAL SARCOMA; 10-20% MPNST (WEAK); 5-10% SFT (WEAK); NEG IN EWINGS SARCOMA
TRYPTASE	TRYPTASE (MAST CELL)	MAST CELLS	MAY BE LESS SENSITIVE THAN CD117

ORDER NAME	ANTIBODY	SPECIFICITY	NOTES
TTF-1	TTF-1 (8G7G3/1) CELL MARQUE	Nuclear stain! TYPE II PNEUMOCYTE; THYROID FOLLICULAR EPITHELIUM; 75 % of non mucinous lung adenocarcinomas are positive, mucinous bronchoalveolar carcinoma may be negative, 17% OF ENDOMETRIAL CA and rare endocervical carcinomas Pos (AJSP 2007); non pulmonary small cell carcinoma may be positive. Negative in pulmonary squamous cell ca. This clone more specific than Novocastra clone (neg in colon ca Mod Path 2005).	Pos in bronchogenic small cell ca and most lung adenoca; negative in mesothelioma.
	UNSTAINED LEVELS X6		
VARICELLA	VARICELLA (MERIFLUOR VZV)	VARICELLA VIRUS (HERPETIC); CYTOPLASMIC STAINING	CYTOPLASMIC STAINING
VILLIN	VILLIN AB1 (THERMO SCIENTIFIC)	BRUSH BORDER OF INTESTINE AND RENAL TUBULAR EPITHELIUM.	NEARLY ALL COLON CA POS; "ENTERIC" LUNG CA (WITH ROOTLETS) MAY BE POS.
VIMENTIN	VIMENTIN (VIM3B4)	MESENCHYMAL INTERMEDIATE FILAMENT; vimentin and keratin coexpression seen in renal cell carcinoma, endometrial carcinoma, salivary gland carcinoma, thyroid carcinoma, mesothelioma, spindle cell carcinomas	
WT-1	WT-1 (6F-H2 DAKO)	NUCLEAR TRANSCRIPTION FACTOR; OVARIAN SEROUS CA; PRIMARY PERITONEAL CA; MESOTHELIOMA; SERTOLI CELL TUMOR; SEX CORD STROMAL TUMORS;	NUCLEAR TRANSCRIPTION FACTOR; OVARIAN SEROUS CA; PRIMARY PERITONEAL CA; MESOTHELIOMA; SERTOLI CELL TUMOR; SEX CORD STROMAL TUMORS;