

<p>EMA SCC (BCC-)/Merkel/ hidradenom lum/ Paget (Bowen-)/MAK/ sebac/ porom/ poro ca/ cyl-spirad/ mixed tu/ ACC/ mucinous ca/ hidrocyst/cystaden/ hidrad papill/ adamantin trichoblastom / saliv mucoepide # neurom / schwannom +/- myoepithelio-parachordom/ angiomat MFH /perineuriom/ SFT/sup acral fibromyxom/ epith sarc/ syn sarc/ chordom/ osteosark/ extrask myx chondro -+/ low grade fibromyx sarc/ myxoinf fibroblast sarcoma -+/ mening/ lipofibromatosis/ epith hist / DF/ desm small round cell tm # mamma/endom/ Lunge adeno-small cell/ ovar/ pankr/ prosta/ colon/ thyr/ cervix/ niere/magen/ nasoph/ biliar/ urotel # ALCL NHL /ALK+ large B-NHL/ L Pap/ Plz/ plasmozytoma/ plasmoblast NHL</p>
<p>CEA Apocrine tumors luminal/ SCC/ Merkel/ ductal struct trichoblast/ MAK luminal/Paget (Bowen -)/ porom lum/ poroca / cyl-spirad lum/ ACC/ myoepithel-mixtumom/ hidroaden lum/ hidroadenoca/ syringom/ hidrocyst-cystaden lum /eccrine duct ca/ mucinous ca/ aggress digit papill adenoca/ tubul papill aden/ hidrad papill / apocrine adenoca/saliv mucoep /acinus cell ca # pank/ ovar/ cervix/ leber/ lung adeno-small ca/ colon/medullary thyroid/ magen/ gallenb/ (mamma) # mening</p>
<p>AE1/AE3 ck 2,4,5,6,8,10,14,15,16,19 / Kamino-bodies (PAS +)/ MM rare/ hidradenom /porom/ aggress digit papill adeno-ca # syn sarc/ epith sarc/ chordon/ mening / myoepitheliom-parachordom/ angiosarc/ leiomyosark / OFMT/chondroblast/ mesoth/ MPNST/ extrask myx chondrosarc -(+)/ infl myofibr tm</p>
<p>MNF116 ck 5,6,8,17,19 / SCC/ ACC/ porom # epith sarc/ myoepithel/ MM rare</p>
<p>CK wide spectrum screening</p>
<p>CK high weight ck 1,5,10,14 Adnextumoren (metast rare)/ squamous/ ductal epithelia/ prostata</p>
<p>CK5/6 H BCC/SCC/ salivary tms/ MAC/ ACC/ digit papill adenoca/ eccrin ca /poroca/ matrical cells / spirad-cyl /saliv mucoep/ syring/ myoep/ mix tm/ eccrine duct ca/ hidradenom/ hidrocyst/cystaden # trichoep-blast/ trichilemmom/ pilar # SCC, adeno lung/ cervix/ endom/ ösoph/ ovar/ kloako/uro/ mamma +/-nasoph/thyr+ # epith sarc/mesoth</p>
<p>CK7 L adenocarcinomas/ SCC+/- talgdrüsentumoren/ Merkel # MAC/ porom/ poroca/ mixtumom/ tubul papill aden/ hidradenom/ aggr dig papill adenoca/ cylindrom-spiradenom/ hidrocystom/ cystadenom /mucinous ca/ apocr adenoca/ syringocyst ad pap lum/Paget (p63 -)/ Bowe+- (p63 +)/ trichoblast # mamma /leber/ ösoph/ magen/ cervix/ endomet/ adenoca + small lung/ niere/ pank/biliar/ uter/ uro/ ovar/ thyroid// prostata -+/ colon -+ /adenom ear # syn sarc / EHE/epit sarc 30%/meso</p>
<p>CK10 H (matrical cells) SCC/porom/ syring/ hidrocyst/ cystadenom / hidradenom clear cells / desm trichilemmoma # perineuriom</p>
<p>CK15 H <i>Metastase meist -/ desm. trichoep (BCC – rare +)/ sebaceoma (basaloid cells)/ seb. ca/ poroca/ MAK/ eccrine ca/ trichoblastom/ trichilemm/ anal ca # SCC lung</i></p>
<p>CK17 H (Äußere Haarwurzelscheide, Myoepithelzellen) trichilemmal ca/BCC/ SCC/ trichoblastom/ # mamma +/- lung -+/ panc+-</p>
<p>CK18 L (Matrical cells) SCC/ cylindroma-spiraden/ hidrocystom/cystadenom / Merkel # syn sarc/ epith sark/ MPNST fokal/ chordom/ desmo fibroblas/meningiom/ parachordom/ EHE # mamma/ lung/ prostata/ magen/ ovar pancreas/ colon/ niere/ small cell ca lung/ uro</p>
<p>CK19 L SCC/BCC/ trichoblast/ anal ca/ poroca/ syringom/ spirad-cyl lum/ syringocyst ad pap/ hidrocystom/ cystadenom/ saliv low grade/ trichoblastom/ # chordon/ mix tu/ epith sarc # mamma/ thyr/ uter/ leber/ prost/ nieren/ ovar/ uro / lung/ magen/ oesoph/ colon/ pank</p>
<p>CK20 L Merkel ca (small lung -)/ trichoep/ Pinkus # colon (CK7 -)/ biliar/ prostata/ endom/ uro/ pankreas/leber/ magen/ovar-muz/ niere -+/ Paget (adenoca-ass) # epit sarc</p>
<p>Chromogranin (neuroen) Merkel/ Pinkus # PNET/neurob/paragangliom/ adenom ear # small lung/ carcinoid</p>
<p>Ber-EP-4 BCC+++/ tricho fokal +/-basal SCC/ Mund SCC/seb ca /Merkel/MAC/hidrad/ porom/ sweat-ca # mamma/ endom/ pank/ prostata/ lung adeno-small-SCC/ magen/ ösoph/ colon/ ovar/ (uro)/ (niere) # syn sarc</p>
<p>p63 (ncl) SCC/ BCC/ eccrin ca/ seb ca/ Bowen (Paget -)/ hidradenom/ tubul papill adenom /mucoep ca/ ACC # myoepitheliom- parachordom/ mix tu/ # uro/lung/ nasopharca</p>
<p>CA125 ovar, colon, mamma +-, biliar, pancreas +-, lung -, magen -+ # mesothel</p>
<p>TTF-1 (nuclear) lung (adenoca, small, SCC)/ gynek/ thyroid/ leber # synovial sarc</p>
<p>CDX2 colorectal/ magen/ ovar/ uro/ pancreas/oesophagus</p>
<p>PSA prostata ca/Epithel Uretra</p>
<p>Beta Catenin L1 (ncl) matrical cells / matricoma / matrix CA / fibromatoses / SFT/ nasal fib/syn sarc # thyr/gastroin/ lung/ gynek</p>
<p>Nierenzell-Ca-Marker (RCC)</p>
<p>Thyroglobulin thyroid, thyroid CA</p>
<p>Mammaglobin mamma-ca/ rare MM</p>
<p>Östrogen (ncl) <i>brust, ovar, endom, sweat glands</i> hidrad papill/ eccrine duct ca/ hidroadenoca/ poro ca # cell angiofibrom/ angiofibromblastoma vulva/ aggr angiofibromblastoma vulva /myofibroblastoma</p>
<p>Progesteron (ncl) (brust, ovar, endom) hidrad papill/ eccrine duct ca # aggr angiofibrom vulv/ meningiom/ cell. angiofibroma/ angiofibromblastom genital/ myofibroblast</p>
<p>C-erb-B2 (cell membrane) mamma/ Paget/ salivary duct ca / eccrine duct ca/ pancreas # osteosarcoma</p>
<p>Androgen (ncl) (genital melanocytes) BCC (tricobl -) / sebac. ca/ hidroadenoca/ apocrine adenoca/ hidrad papill /mixtumom/ saliv duct ca # uro/ breast duct ca # spindlezelllipom/ meningiom/ nasophar fibro</p>

MLH-1 (ncl) Muir-Torre
MSH-2 (ncl) Muir-Torre
p16 (ncl) oral/anogenital SCC/ HPV-Dyspl/ porocarcinoma
p53 (ncl) BCC/ MM/ Ca situ/ VIN/ ACC/ hidradenom/ spir adenoca # ovar/ larinx/ colonrect ca # infl myofibr tm
CD68 (PG-M1) MML+/- AML/ Rosai-Dorf/ XGN/ ret hist granul/ histiocytic sarc/ BPDCN 50%/ primar cut acral CD8+ NHL # MM # GCT tendon sh/ NTK/ granular CT/ nod fas /PFHT/ AFX-MFH/ acral myxoinfl fibrobl sarc/ Pecom/ angiomat MFH/ mult cell angiohist/ dermal clear cell mesench neoplas # Renal adenoca
Lysozym granulocyt precursors (lysozym +/CAE +)/Monocyt (Lysozym +/ CAE-) MML/ myelo sarc/ histioc sarc # XGN/ RHG/ Rosai-Do
Myeloperoxidase Neutros, myelo, pro- myeloz, metamyeloz/ AML/ CML/histiocyt sarc
CD1a LGH Cells/indeterm histio/ cong self-healing histio/ interdig. Retikulumzell/trichobl
Langerin (CD107) Langerhans cells
CD3 Pan-T/Pannik NHL/LPap/ EBV-Infekt
CD4 T-Help/Lgh/XGN/ MF/Sezary (CD7,8-)/ MML (CAE-)/ macrophag/ promyelozyt/ LP A,B,C (CD8 -)/ BPDCN/CALCL/ angioimmun NHL (CD8 -, CD10 +, Bcl-6+)/ small-med T-NHL
CD5 T-Lymp/ Mastcells/ MF/ B-CLL/ mantel/ Richter/ intravas B-NHL/ prolymph 30% # MAK
CD7 T-Zell/Sezary neg/BPDCN/AML
CD8 Pannik T-NHL/ aggr epiderm CD8+ cytotox T-NHL (CD4, 5,2 -)/ Paget retikulose CD7-, CD4 +/-Lym Pap D und E (CD4 -)/ hydroa vacc NHL/ Prim cut acral CD8+ NHL (CD4 -)
CD10 Macrophages, Granulocytes # Stroma Endometriose/ seb ca/ MM/ stroma trichoblast # Lymphobl/foll/ intravas angioimm Burkitt-B NHL/CML/ ret hist granu # AFX-MFH/ sup acr fibromyx/mix tu /OFMT/DF NTK/endomet stroma sarc/fibrosarc/ perineur #prost/nierclear/colon/leber/uro /mesoth
CD15 granulocytes/monocytes/ myelocytes/ metamyelc/ Hodgkin/ EBV B-large/ EBV+ mucocut ulcer/ AML/granulozytäres sarc/ plasmoblastic NHL # sebaceous/ adamatin trichoblast / desm trichoep/ eccrin duct ca
CD19 B-CLL/ follicul, marginal NHL/ Burkitt
CD20 PanB/ follicular/ hairy/ intravask B-NHL/ Large B leg-type/ Burk/ Richter/ EBV-B-large NHL/EBV+ mucocut ulcer # desm tricho
CD21 folldendrcells/foll NHL/ FDC sarc
CD23 B- CLL (Mantelcell neg) /FDC sarc/ angioimmunoblastic and prolymphocytic NHL
CD30 ALCL > 30% cells/ lymph pap/ MF/ Hodgkin/ EBV-B-large/ EBV+ mucocut ulcer/ hydroa vacc NHL/ plasmoblast NHL/ CD30+ intralymph large T-NHL/ breast implant large cell anapl NHL # EBV infect # adamant tricho # deziduazellen # pancreas/ endometriose
ALK1 (CD246) ALCL syst +/cutan -(+) / ALK+ large B-NHL/ lym pap # non-small-cellCa Lung /mamma # infl myofiblast Tm/epith hist/ rhabdosarc/ infl myofibrobl tumor
MUM-1(nuclear) large-B-NHL leg-type/ CALCL/LP/ Hodgkin/ EBV-B-large/ EBV+ mucocut ulcer/ plasmozytom/ plasmobla NHL/ALK+ larg B NHL/ CLL/ marginal NHL
FOX-P1 (ncl) B-NHL-Leg-Type, other B-NHL
CD43 B-CLL/ALCL/BPDCN/ Granuloz Sark/ Mastzellen/Langerhans Zellen/Hist/AML/MML
CD45 (LCA) XGN/ Ret HG/Mastz/ rhabdo
CD56 NK-NHL/gamm-delta T-NHL/lym pap E / myeloid sarcoma (20%)/ NK nasal/ BPDCN/ AML/ plasmobla NHL 25%/ neural/ hydroa vac NHL 35%/ EBV infekt 40%/ Mückenallergie EBV+ # syn sarc/ neuroend/ MPNST/ MM/ Neuroblast/ PNET-Ew/ Lung small cell/Merkel
CD79a PanB/BLL/Plasmozyt/PlasmoblasNHL
CD117 (c-Kit) Mastcell/ AML/promyelozyt/ erythrobla/proerythroblast #ACC # MM/ CCS/ PNET-Ewing/ DFSP/gastroint stromal Tm/ fibromatose/infantiles hämangion/ angiosark/ Pecom/ myxoinfl fibroblast sarc # small lung
CD123 plasmacyt dendrit cells/ Kikuchi / LE/ Castleman/ endothelial cells/ BPDCN
CD138 (Plasmazellen)/ ALK+ large B-NHL/ Plasmoblastic NHL/ plasmocytoma
kappa marginal-NHL, plasmocyt, plasmobl
lambda marginal-NHL, plasmocyt, plasmobl
kappa CISH
lambda CISH
IgM CLL/marginal/follic +/-leg-type /Plasmoc
TCRβ (βF1) αβT-cells/most TCL/- in γδTCL
TDT T-/B- Lymphobl/ALL/AML/B-LBL/ BPDCN
Bcl6 (ncl) foll/ leg +/-Burk/ double Hit B
Bcl2 (ncl) Matrical, basal cells/ NZN-MM/ ACC/ mixTu # NHL/extracut foll/ mantel/large Bleg +/- marginal, angioimm/ Haartzell/ double Hit B-NHL/ intravask B-NHL # BCC/ trichoep+/ trichoblast # DFSP/SFT/ SCL/lipofib/ fibromatose +/-fibrosar++/syn sarc /Ewing
Cyclin D1 Mantel-NHL # mamma ca # fibromatose/ epith sarc/ nuchal fib

Granzyme B <i>T-zytotox Lymphozyt / large cell anaplast/ Pannikulitis-T-NHL /NK-NHL, nasal type/ aggr epidermotrop CD8+ T-NHL/</i>
CD99 <i>B-lymphoblast # PNET- Ewing (neuroblast -)/ PNST/ SFT/ meningioma/ NTK/ AFX/MFH/ SynSark/ epith sarcoma / nuchal fibroma/ storiform collagenom/ DFSP/ PHAT/ chondrosark/ osteosark/ angiomat MFH/ superf acral fibromyx/perineur/ lipofibromatos/ MM desmo/ Ewing/ MPNST</i>
NF <i>NF/ neuroblastom / Merkel/ small lung</i>
NSE <i>neural/neuroendocrine tm/ Merkel/ small lung # PNET-Ewing/ myx NTK/ extrask myx chondro/ neuroblast/ infant fibrosarcoma/ gran cell tm</i>
GFAP <i>(neural-Schwannzell) speicheldrüse/ mixtumor/ myoepitheliom-parachordom/ chordom/ PNST/OFMT / myxoid NTK (+)/ schwannom +- / NF +/- perineuriom</i>
Faktor XIIIa <i>(dermaldendrocytes, Megaka) DF/ angiofib-nasenpapel / mult cell angiohist/ SFT/ NF/ cell dig fib/ HPC/ gran cell tm/ pleom fibrom +- /perineuriom/ plaque-like CD34 derm fibrom +- # RHG +/-XGN/ xanthoma</i>
MDM2 <i>liposarcoma/infl myofibrobl tu</i>
Muscle specific Aktin (HHF 35) <i>Leiomyosarc/ myoepithel-ACC /mixtumor/ aggr angiomyx/ angio MFH / myoep/ mixtumor/ myofibr/ NTK/ angioleio/ Pecom/ HPC/ PFHT/ myopericytom/ glomus/ KS/ perineuriom/ chondrosk/ fib hamart inf/ epith sarc / fibrosarc/dermatomyofibrom/ myxofibrosark/ nuchal fibroma/ infl myofibrobl tumor</i>
Alpha-SMA <i>scar/ leiomyosarc/fibrobl connect tissue nevus/ cell angiofibroma/ fib tend sh/ myofibroblast/ angiomyofibroblast vulva +/- SFT/ NTK/ superf angiomyx/ perineuriom / aggr angiomyxoma vulva/ myoepitheliom-parachordoma/ mixed tm/ angiomat MFH/ OFMT (+)/ PFHT/ epith sarc/ Pecom/ myofibromatosis/ osteosarc/ fibrosarc/ nod fasc/ pleom fib/ fibr hamart infancy/ myofibr/ myopericytoma/ myxofibrosark +/- infant fibrosarc/ plaque-like cd34+ dermal fibroma +- / myxofibrosark/ fibromyxoid sarc/myofibrobl sarc/ lipofibromatosis/ infl myofibr tm/ glomus/ dermatomyofibr/ desmopl fibroblast (+)/ fibromatose/ myofibroblastom focal/ Pecom # hidradenom/ tub papillar adeno/ myoep-ACC</i>
Desmin <i>quer und glatte Muskel/ Some myofibrobl tm/ leiomyom/ leiomyosarc 70%/ zell NTK (+ -)/ rhabdo/ angiomat MFH 50%/ OFMT/ SFT/ angiomyxom/ glomus/(Pecom)/ cell angiofibrom/ angioleiomyom/ aggr angiomyx vulva / myoepitheliom-parachord/ myopericytoma -+/ epith sarc/ myofibroblast/ angiomyofibroblast vulva/ myxofibrosark -+/ infl myofibr tm -+/ gastroint stromal tm/ otesarc/desm small round cell tm / infant fibrosarc/ low grade myofibrobl sarc/ alveolar soft part/ infl myofibrobl tm 60%/ Pecom</i>
H-Caldesmon <i>Smooth Muscle/ Leio/ myopericytom + (myofibrom -)/ myoepith/ Pecom/ glomus/ angiom MFH +/- angioleiomyo/ infant myofibromat/ epith sarc</i>
Calponin <i>(Muscle/Myofibroblast) leio/ cell NTK/ myofibr/ myoepithel/ Pecom/ glomus/ mixtumor/ myopericytom/ PFHT/ myofibroblastom / syn sarc/ nod fasc/ myxofibrosark/myofibrobl sarc/fibrous hamart infancy/ angiom MFH/ infl myofibr tm/ dermatomyof/ fibromatose # tub papill adeno</i>
CD34/QBEnd10 <i>endoth/myelobla/ megakar/ monoblast # Haarwurzelscheide/ trichodisc/ stroma foll seb cyst hamart/ trichilemmom/ stroma trichoep und trichoblast (stroma MAC- und stroma BCC -) # DFSP/ plaque-like CD34+ dermal fibroma/ CD34 eruptive fibrom/ SFT/ fibroblast connect tissue nevus/ NF/ myxom/ dermatomyofibrom -+/ KS/ GCF/ cell angiofibr genit/ angiomyofibroblast genit/ sup angiomyx / aggr angiomyx vulva /sup akr fibromyx/ cell digit fib/ pleom fibrom / skler fibrom/ pleom fibrom / nuchal fibroma/ HPC/ nuchal fibrocart tm/ PHAT / myxoid glomus / myofibr-myopericytom -(+)/ perineuriom/ spindle lipom /sclerotic lipoma /lipofibromat/ fibrous hamart infancy/ myxoinfl fibrobl sarc/ myofibroblastom / epith sarc/ phylloides/ fibromyx sarc/ acral myxoinfl fibroblast sarc/ myxofibrosk +- #AML/B lymphoblast NHL/MDS</i>
ERG (ncl) <i>endoth/prostate ca, AML, synovial sarc with ERG fusion</i>
Glut 1 <i>(Haarwurzelscheide, erys) perineurioma/ infant. hämangiom + vask malf- # pancreas/lung/ magen/colorectal/renal clear</i>
CD31 <i>endothel/megakaryocytes/histiocytes/ Lgh /XGN/ ret hist granul # renal clear cell</i>
Podoplanin (D2-40) <i>Metast - # apocr adnextumoren/ poro ca # lymph endoth/ KS/ lymphang/ angiosk/ cell NTK/schwan/FDC sarc</i>
Wilms-Tumor 1 <i>infant hämang (vascular malfom -)/desm small round cell tm/ovar ser</i>