

AE1/AE3	http://biocare.net/products/antibodies/p/011/	AE1/AE3 recognizes the acidic and basic (Type I and II) subfamilies of cytokeratins. The combination of these two antibodies can be used to detect most human epithelia. The acidic cytokeratins have molecular weights of 56.5, 55, 51, 50, 50, 48, 46, 45, and 40 kDa. The basic cytokeratins have molecular weights of 65-67, 64, 59, 58, 56 and 52 kDa. This pan cytokeratin antibody has proved useful as a screener for the majority of human carcinomas.
Alpha 1-ACT		
Alpha-1 Antitrypsin		
B-cell PCR		
BCL-2	http://biocare.net/products/antibodies/b/003/	Bcl-2 (b-cell lymphoma #2) is a proto-oncogene at 18q21.3; encodes 25 kDa protein mainly localized to inner mitochondrial membrane; also endoplasmic reticulum and nuclear envelope. Expression of bcl-2 alpha oncoprotein has been shown to inhibit the programmed cell death (apoptosis). In most follicular lymphomas, neoplastic germinal centers express high levels of bcl-2 protein, whereas the normal or hyperplastic germinal centers are negative
CAM 5.2		
CD-10	http://biocare.net/products/antibodies/c/129/	Human CD10, also known as common acute lymphoblastic leukemia (CALLA), has been shown to react with TdT+ lymphoblastic leukemia, follicular germinal cell lymphoma, Burkitt's lymphoma, and chronic myelocytic leukemia. CD10 also marks normal early lymphoid progenitor cells, immature B-cells in adult bone marrow, and germinal cells in normal tonsil and normal lymphoid tissue. It is also expressed in some non-lymphoid tissues such as fibroblasts, breast myoepithelium, and brush border of kidney. Recently, CD10 has been used in a panel for mantle cell lymphoma with cyclin D1 (+), CD43 (+), CD5 (+), IgM (+), CD23 (-) and CD10 (-).
CD-11		
CD-12		
CD-13		
CD-14		
CD-15	http://biocare.net/products/antibodies/c/029/	CD15 is present on greater than 90% of granulocytes including neutrophils and eosinophils, and to a lesser degree, on monocytes. CD15 is expressed in Reed-Sternberg cells of Hodgkin's disease (of the nodular sclerosis, mixed cellularity and lymphocyte-depleted subtypes), and certain types of epithelial cells. It is generally agreed that the Reed-Sternberg cell variants in lymphocyte-predominant Hodgkin's disease are not reactive with CD15. Positive staining for CD15 combined with a negative reaction for lymphocytic markers may provide support for Hodgkin's disease.
CD-16		
CD-17		
CD-18		
CD-19	http://biocare.net/products/antibodies/c/310/	CD19 recognizes a 95kD cell surface glycoprotein, which is expressed by cells of the B-cell lineage and follicular dendritic cells. CD19 is a co-receptor of CD21 and is an important signal transduction molecule which is involved in the regulation of B-lymphocyte development, activation and differentiation. Among the B-cell genes that are present in early B-cell development and are upregulated by Pax-5 are CD19 and CD79a. CD19 is found in Pre B cells, B cells (considered a pan B-cell antigen); first B-cell antigen after HLA-DR and follicular dendritic cells. CD19 is absent in plasma cells, most T-cell lymphomas and in lymphocyte predominant Hodgkin's. It has been observed in lymphomas and leukemias but often weak/negative in follicular lymphoma or diffuse large B-cell lymphoma. CD19 is well-suited for formalin-fixed paraffin-embedded tissues, flow cytometry and western blotting techniques. CD19 may provide useful diagnostic information for the study of B-lymphoproliferative disorders.
CD-20	http://biocare.net/products/antibodies/c/004/	CD20 [L26] reacts with a protein of a 30-33 kDa polypeptide present in B-cells. L26 reacts with the majority of B-cells present in peripheral blood and lymphoid tissues. In normal lymphoid tissue, L26 marks B-cells in germinal centers, particularly immunoblasts. This antibody has been shown to be a reliable marker as a pan B-cell marker. It rarely marks T-cells.
CD-21	http://biocare.net/products/antibodies/c/142/	CD21 has been shown to label follicular dendritic cells (FDC), as a means of illustrating the phenomenon of follicular colonization in marginal zone lymphoma. CD21 has been also used in proving cell lineage in some rare tumors of the FDC.
CD-22	http://biocare.net/products/antibodies/c/169/	CD22 (BL-CAM) is a type 1 integral membrane glycoprotein with molecular weight of 130 to 140kD. It is expressed in both the cytoplasm and cell membrane of B-lymphocytes. CD22 antigen appears early in B-cell lymphocyte differentiation at approximately the same stage as the CD19 antigen. Unlike other B-cell markers, CD22 membrane expression is limited to the late differentiation stages comprised between mature B cells (CD22+) and plasma cells CD22-, and may thus prove useful in phenotyping mature leukemias. CD22 is also strongly expressed in hairy cell leukemia.
CD-23	http://biocare.net/products/antibodies/c/100/	CD23 is a 45 kDa glycoprotein that acts as a receptor for IgE. It is expressed by interleukin-4 activated B-lymphocytes, by activated macrophages, and by a proportion of follicular dendritic cells. CD23 has been shown to be useful for the differentiation of small lymphocytic lymphomas and mantle cell lymphoma.

Chromogranin-A	http://biocare.net/products/antibodies/c/010/	This antibody recognizes a protein of 68-75kDa, identified as Chromogranin A (a protein of 439-amino acid which is encoded on chromosome 14). Although the epitopes for [LK2H10] and [PHE5] are not precisely mapped, experimental data suggests that they are different. A combination of LK2H10 and PHE5 is specifically designed for sensitive detection of Chromogranin A in formalin-fixed, paraffinembedded tissues. Chromogranin A is present in neuroendocrine cells throughout the body, including the neuroendocrine cells of the large and small intestine, adrenal medulla and pancreatic islets. It is an excellent marker for carcinoid tumors, pheochromocytomas, paragangliomas and other neuroendocrine tumors. Coexpression of Chromogranin A and neuron specific enolase (NSE) is common in neuroendocrine neoplasms.
CK 19	http://biocare.net/products/antibodies/c/242/	CK19 reacts with the rod domain of human keratin 19, a 40kDa polypeptide. The antibody reacts with MCF-7 cells and has been shown to label trichoblastoma, thyroid tumors, oral cancer, and epithelial odontogenic tumors. CK19 is not expressed in most hepatocytes, therefore cytokeratin 19 is useful in the identification of liver metastasis and can be used in a panel with Hepatocyte Specific Antigen (HepPar1).
CK 20	http://biocare.net/products/antibodies/c/062/	Cytokeratin 20 is 46kDa intermediate filament protein that has been identified with expression primarily restricted to gastric and intestinal epithelium, urothelium, and Merkel cells. Cytokeratin 20 is a unique type I keratin that is expressed in adenocarcinomas of the colon, stomach, pancreas and bile system. It is also expressed in mucinous ovarian tumors, transitional cell carcinomas of the urinary tract, and Merkel cell carcinomas. CK20 is essentially non-reactive in squamous cell carcinomas and adenocarcinomas of the breast, lung, and endometrium, as well as non-mucinous tumors of the ovary and small cell carcinomas. Cytokeratin 20 is often used in conjunction with CK7 and other antibodies in distinguishing colon carcinomas (CK20+) from ovarian, pulmonary, and breast carcinomas.
CK 5,6	http://biocare.net/products/antibodies/c/105/	Cytokeratin 5/6 reacts with human epidermis and non-keratinizing epithelium as determined by immunoblotting. It also reacts with cytokeratin No. 6, and weakly reacts with cytokeratin No. 4. It does not react with cytokeratins 1, 7, 8, 10, 13, 14, 18 and 19. CK5/6 has been shown to be a reliable marker for mesothelioma and squamous cell carcinoma of the lung. It does not react with pulmonary adenocarcinoma.
CK 7	http://biocare.net/products/antibodies/c/061/	Cytokeratin 7 is an intermediate filament protein (IFP) of 54kDa that recognizes the simple epithelium found in most glandular and transitional epithelia; but not that which is found in the stratified squamous epithelia. This monoclonal antibody [clone OV-TL 12/30] is highly specific to cytokeratin 7 and shows no cross-reaction with other IFPs. Cytokeratin 7 is a basic cytokeratin, and is expressed in epithelial cells of ovary, lung, and breast, but not of colon or gastrointestinal tract. It is often used in conjunction with cytokeratin 20 in distinguishing ovarian, pulmonary, and breast carcinomas (CK7+) from colon carcinomas (CK7-).
Desmin	http://biocare.net/products/antibodies/d/036/	Desmin recognizes a 53kDa intermediate filament protein which is identified as desmin. This MAb is highly specific to desmin and shows no cross-reaction with other intermediate filament proteins. Antibody to desmin reacts with striated (skeletal and cardiac) as well as smooth muscle cells. In skeletal and cardiac muscles, the staining is confined to the Z-bands giving a characteristic striated appearance. Anti-desmin antibody is useful in identification of tumors of myogenic origin. It reacts with leiomyosarcomas (smooth muscle) as well as rhabdomyosarcomas (striated muscle). Biocare's D33 MAB is excellent for staining of formalin-fixed paraffin-embedded tissues.
EMA	http://biocare.net/products/antibodies/e/3038/	Epithelial membrane antigen (EMA) belongs to a heterogeneous family of highly glycosylated transmembrane proteins known as human milk fat globule (HMFG) membrane proteins. This family of antigens is not restricted to breast but may also be found in secretory epithelial cells, to a lesser degree, in non-secretory epithelium (e.g., squamous epithelium) and rarely in non-epithelial cells. EMA is best considered a broad-spectrum antibody that is reactive against many types of adenocarcinoma. Breast and skin adnexal tumors are strongly positive. A lesser degree of staining is seen in carcinomas of the endometrium, kidney, thyroid, stomach, pancreas, lung, colon, ovary, prostate and cervix. Embryonal carcinomas, medullary carcinomas of thyroid, squamous carcinomas, sarcomas, lymphomas, and melanomas all tend to be nonreactive or show rare positive cells. Transitional cell carcinomas may show weak reactivity and anaplastic large cell lymphomas can be positive for EMA.
ER	http://biocare.net/products/antibodies/e/301/	Clone SP1 has been established to work in formalin-fixed, paraffinembedded tissues. The presence of ER in breast tumors indicates an increased likelihood of response to anti-estrogen (tamoxifen) therapy. Staining patterns observed include: ER+ and PR+, ER+ and PR-, ER- and PR+, and ER- and PR-. The SP1 clone is a high affinity rabbit monoclonal. An in-house study showed that SP1 clone had 5 times more binding capacity than ER clone 6F11 and 10 times more binding capacity than ER clone 1D5. Studies also have shown that the SP1 clone is superior to 1D5 in predicting survival. Excellent results can be achieved with antigen retrieval at lower temperatures such as 80 or 95 degrees Celsius. The robustness of SP1 is further proved by the fact that in some instances staining can be obtained even without antigen retrieval. Thus, SP1 may prove of great value in the assessment of ER status in human breast cancer.

Factor VIII	http://biocare.net/products/antibodies/f/039/	This antibody reacts with human von Willebrand factor. Traces of contaminating antibodies have been removed by solid-phase absorption with human plasma proteins. This protein has functional binding domains to platelet glycoprotein Ib, glycoprotein IIb/IIIa, collagen and heparin. The Factor VIII (Von Willebrand Factor) is synthesized by endothelial cells and stored in the Weibel-Palade granules. This antibody reacts specifically with the endothelial cells of both normal and reactive, and neoplastic blood and lymphatic vessels and a finely granular cytoplasmic staining. It also reacts with endocardium, platelets, and megakaryocytes. Factor VIII has been shown most useful in marking and identifying normal endothelial cells of their corresponding neoplasms. However, because not all endothelial cells synthesize and/or store the molecule, this antibody will mark approximately 70% of tumors of vascular origin. It is therefore recommended that both CD34 and Factor VIII be used together as a panel. Staining for factor VIII related antigen has also been used to measure angiogenesis and has been shown in some studies to predict tumor recurrence.
Factor XIII A	http://biocare.net/products/antibodies/f/357/	This is a monoclonal antibody to the A-subunit of human coagulation Factor XIII. It recognizes human Factor XIII A-chain in both reduced and non-reduced forms. It does not react with human Factor XIII B-chain or human Factor XII. Factor XIII is a betaglobulin found in plasma and is composed of two subunits. Factor XIII-A is the catalytic subunit and is a dimer of M.W. 160,000. Factor XIII is present in plasma as an alpha2beta2 heterodimer (M.W. 320,000); whereas in platelets, only the alpha2 unit exists. Factor XIIIa is a dermal dendrocyte marker and shows variable reaction with these types of tumors. It can be used for histiocytic phenotyping and has been reported to mark capillary hemangiomas and tumors of the central nervous system. Factor XIIIa has also been used with CD34 to differentiate between dermatofibroma and dermatofibrosarcoma protuberans.
HAM-56		
HER2		
HERCEPT		
Herpes Simplex	http://biocare.net/products/antibodies/h/108/	This antibody reacts with Herpes Simplex Virus (HSV) 1 and 2. It reacts with major viral envelope glycoproteins and with core proteins. Infected biopsy tissues include esophagus, lung, liver, cervix and perianal region, as well as cytological prepared cells. HSV can also infect both the peripheral and central nervous system. Viral antigens may be detected in the cytoplasm and nucleus. Typically, HSV Type 1, infects tissues such as lung and esophagus and HSV Type 2, infects the genitals and anus. This antibody does not cross-react with cytomegalovirus, Epstein-Barr virus, or varicella zoster virus. This antibody works well with formalin fixation, however prolonged fixation can be detrimental to HSV staining.
HMA		
HPV Screen		
HSV-8		
Kappa Light Chain	http://biocare.net/products/antibodies/k/012/	This antibody is highly specific to the kappa light chain of immunoglobulin. It is reportedly useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas. The most common feature of these malignancies is the restricted expression of a single light chain class. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is clonal and therefore malignant.
Keratin+Cam5.2		
Ki-67	http://biocare.net/products/antibodies/k/325/	The Ki-67 nuclear antigen is associated with cell proliferation. It is found throughout the cell cycle that includes the G1, S, G2, and M phases; but not the (G0) phase. It is used to grade proliferation rates of tumors. The high affinity and/or binding capacity of rabbit antibodies provide superior staining results and less chance for technical false negatives.
L-26(Pan B)		
Lambda Light Chain	http://biocare.net/products/antibodies/l/014/	Specifically recognizes lambda light chains of human immunoglobulins. It also recognizes free lambda light chains and Bence-Jones lambda light chains. It does not cross-react with kappa light chains. This antibody is useful in the identification of leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas. The most common feature of these malignancies is the restricted expression of a single light chain class. Demonstration of clonality in lymphoid infiltrates indicates that the infiltrate is clonal and therefore malignant.
LCA	http://biocare.net/products/antibodies/l/016/	CD45 recognizes an antigen found on lymphoid cells. Most neoplastic B-cells and Tcells stain positively in leukemia and in non-Hodgkin's lymphomas; whereas most neoplastic myeloid and erythroid cells are negative. It is unreactive with epithelium and connective tissues. The PD7/26 and 2B11 antibody was included in the 4th International Workshop and was designated as CD45. It belongs to a LCA family of glycoproteins with molecular weights of 180, 190, 205 and 220. It is well suited for formalin-fixed paraffin-embedded tissues and is used as a pan lymphocyte screener for lymphoma.
Lysozyme		
Melan-A		
Myoglobin		

NSE	http://biocare.net/products/antibodies/n/049/	NSE recognizes a protein of 46kDa, identified as neuron-specific enolase (NSE). Enolases are homo- or heterodimers of the three subunits: alpha (46kDa), beta (44kDa), and gamma (46kDa). The alpha-subunit is expressed in most tissues and the beta-subunit only in muscle. The gamma-subunit is expressed primarily in neurons, in normal and in neoplastic neuroendocrine cells. NSE shows no cross-reaction with the alpha- or beta-subunits of NSE. Coexpression of NSE and chromogranin A is common in neuroendocrine neoplasms. Biocare's DT01 + BC100 antibody combination is excellent for immunohistochemical staining of formalin-fixed, paraffin-embedded tissues.
Pan Cytokeratin (Lu-5)	http://biocare.net/wp-content/uploads/043.jpg	Lu-5 is useful in differentiating epithelial and mesothelial cells from mesenchymal cells in normal and tumor tissues. It serves as a first-order pan cytokeratin antibody for both acidic (type I) and basic type (basic type II) cytokeratin subfamilies of all vertebrates tested so far. Lu-5 stains an intracytoplasmic, formaldehyde-resistant epitope on the surface of cytokeratin filaments. Lu-5 has been shown to be superior to AE1/AE3.
Pan Melanoma (HMB-45, Mart 1, Tyrosinase)	http://biocare.net/products/antibodies/p/165/	The HMB45 clone reacts with a neuraminidase-sensitive oligosaccharide side chain of a glycoconjugate present in immature melanosomes. The HMB45-reactive antigen is present in cutaneous melanocytes, prenatal and infantile retinal pigment epithelium and melanoma cells. It is also thought to be oncofetal in nature. This antibody has been shown to label the majority of melanomas. The MART-1/Melan A recognizes a protein of 18kDa, identified as MART-1 (Melanoma Antigen Recognized by T cells 1) or Melan-A. Melan-A is a useful addition to melanoma panels which is specific to melanocytic lesions. Studies have also shown that MART-1 is more sensitive than HMB45 when labeling metastatic melanomas. Tyrosinase is a key enzyme involved in the initial stages of melanin biosynthesis. Studies have shown Tyrosinase to be a more sensitive marker when compared to HMB45 and MART-1. It has also been shown to label a higher percentage of desmoplastic melanomas than HMB45. The combination of HMB45, MART-1 and Tyrosinase make this quadruple antibody combination a first-order pan melanoma screener, and may prove to be a valuable marker for melanoma metastasis in sentinel lymph nodes.
PR		
PSAP		
S-100	http://biocare.net/products/antibodies/s/021/	S100 recognizes proteins of 21-24kDa, identified as the A and B subunits of S100 protein. S100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. Antibody to S100 stains Schwannomas, ependymomas, astroglomas, and almost all benign and malignant melanomas and their metastases. S100 protein is also expressed in the antigen presenting cells such as the Langerhan's cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes. The diagnosis of Histiocytosis X is confirmed by S100 staining. S100 PAb is excellent for immunohistochemical staining of formalin-fixed, paraffin-embedded tissues.
SMA		
T-cell PCR		
TTF-1		