

**Intended Use:**

| ANTIBODY                                     | APPENDIX  | TONSIL  | PANCREAS   | LIVER                                       |
|--|---|---|--|---|
| AAT<br>Alfa-1-antitrypsin<br>(Cytopl)        | Macrophages & villi of columnar epithelial cells  | Macrophages   | 0  | Kupfer cells & hepatocytes (globuli)        |
| ASMA<br>Alfa-smooth muscle actin<br>(Cytopl) | Smooth muscle cells in vessels and in muscle layers. Myofibroblasts lining the epithelial surface     | Smooth muscle cells in vessels  | Smooth muscle cells in vessels                                   | Smooth muscle cells in sinusoids            |
| B-CATENIN<br>Beta-catenin<br>(Membrane)      | Membranes of columnar epithelial cells. Endothelial and follicular dendritic cells                    | Membranes of squamous epithelial cells  | Membranes of acinar epithelial cells (ducts) and endocrine cells | Hepatocytes - weak membranous               |
| BCL2<br>Bcl2-oncoprotien<br>(Cytopl)         | All peripheral lymphocytes include T-cells in germinal centres - Germinal centre B-cells are negative | All peripheral lymphocytes include T-cells in germinal centres - Germinal centre B-cells are negative | Weak reaction of epithelial cells.                               | 0   |
| BCL6<br>Bcl6-protien<br>(Nuclear)            | Germinal centre B-cells   | Germinal centre B-cells and basal squamous cells  | 0  | 0   |
| ANTIBODY                                     | APPENDIX  | TONSIL  | PANCREAS   | LIVER                                       |
| BOB.1<br>BOB.1-Protien<br>(Nuclear)          | Strong reaction in germinal centre B-cells - weak reaction in mantle zone B-cells and plasma cells    | Strong reaction in germinal centre B-cells - weak reaction in mantle zone B-cells and plasma cells    | 0  | 0   |
| CD2<br>(Membrane)                            | All T-cells - Isolated T-cells in germinal centres  | All T-cells - Isolated T-cells in germinal centres  | T-cells  | T-cells                                     |
| CD3<br>(Membrane)                            | All T-cells - Isolated T-cells in germinal centres  | All T-cells - Isolated T-cells in germinal centres  | T-cells  | T-cells                                     |
| CD4<br>(Membrane)                            | 60-80% of T-cells   | 60-80% of T-cells and Germinal centre macrophages   | 0  | Kupfer cells and sinusoid endothelial cells |
| CD5<br>(Membrane)                            | All T-cells - isolated T-cell in germinal centres   | All T-Cells - Isolated T-cells in germinal centres  | T-cells  | T-cell                                      |
| CD7<br>(Membrane)                            | Almost all T-cells  | Almost all T-cells  | T-cells  | T-cells                                     |
| CD8<br>(Membrane & cytopl)                   | 20-40% of the T-cells and NK-cells, Isolated T-cells in germinal centres                              | 20-40% of the T-cells and NK-cells, Isolated T-cells in germinal centres                              | 0  | 0   |

|  |   |   |   |  |
|--|---|---|---|--|
| CD10<br>(Membrane)                             | Germinal centre B-cells, neutrophile granulocytes                   | Germinal centre B-cells, neutrophile granulocytes                     | 0   | 0  |
| CD14<br>(Membrane)                             | Follicular dendritic cells and macrophages                          | Follicular dendritic cells and macrophages                            | Macrophages   | Kupfer cells and sinusoid endothelial cells                    |
| CD20<br>(Membrane)                             | All B-cells incl germinal centre B-cells, plasma cells are negative | All B-cells incl germinal centre B-cells, plasma cells are negative   | B-cells   | B-cells  |
| CD21<br>(Membrane)                             | Follicular dendritic cells  | Follicular dendritic cells and a few mantle zone B-zone               | 0   | 0  |
| CD23<br>(Membrane)                             | Follicular dendritic cells and 10-50% of the mantle zone B-cells    | Follicular dendritic cells and 10-50% of the mantle zone B-cells      | 0   | 0  |
| CD31<br>(Membrane & cytopl)                    | Endothelial cells and few mantle zone B-cells                       | Endothelial cells and few mantle zone B-cells                         | Endothelial cells   | Endothelial cells  |
| CD34<br>(Membrane & cytopl)                    | Endothelial cells and myofibroblasts                                | Endothelial cells and myofibroblasts                                  | Endothelial cells and myofibroblasts                          | Portal endothelial cells                                       |
| CD38<br>(Membrane)                             | Germinal centre B-cells and plasma cells                            | Germinal centre B-cells and plasma cells                              | Plasma cells  | Plasma cells and weak reaction of sinusoids                    |
| CD43<br>(Membrane)                             | Almost all T-cells  | Almost all T-cells - isolated T-cells in germinal centres             | T-cells   | T-cells  |
| CD45<br>Leucocyte common antigen<br>(Membrane) | All lymphocytes   | All lymphocytes   | All lymphocytes   | Lymphocytes & Kupfer cells                                     |
| CD56<br>(Membrane)                             | Peripheral nerves - ganglion cells and axons. Enocrine cells        | NK-cells in the interfollicular areas                                 | Peripheral nerves and the islets of Langerhans                | Peripheral nerves  |
| <b>ANTIBODY</b>                                | <b>APPENDIX</b>   | <b>TONSIL</b>   | <b>PANCREAS</b>   | <b>LIVER</b>   |
| CD57<br>(Membrane)                             | Peripheral nerves - ganglion cells and axons. Enocrine cells        | NK-cells in the interfollicular areas and T-cells in germinal centres | Peripheral nerves and a few cells in the islets of Langerhans | 0  |
| CD68<br>(Membrane & cytopl)                    | Granulocytes and germinal centre macrophages                        | Granulocytes and germinal centre macrophages                          | Granulocytes  | Kupfer cells   |
| CD79<br>(Membrane & cytopl)                    | All B-cells incl germinal centre cells and plasma cells             | All B-cells incl germinal centre cells and plasma cells               | All B-cells   | All B-cells  |
| CD117<br>(Membrane & cytopl)                   | Mast cells and Cajal cells - smooth muscle cells shall be negative  | Mast cells  | Mast cells  | Mast cells   |
| CD138<br>(Membrane & cytopl)                   | Plasma cells and a weak reaction of the columnar epithelial cells   | Plasma cells  | Plasma cells  | Plasma cells   |
| Cdx2<br>(Nuclear)                              | All nuclei of columnar epithelial cells                             | Negative  | Weak reaction of epithelial cells in large ducts              | Negative - occasionally few gall epithelial cells are positive |

|   |  |  |   |  |
|---|--|--|---|--|
| CEA<br>Carcinoembryonic antigen, mono<br>(Cytopl)         | All columnar epithelial cells - luminal accentuation and reaction of the cytoplasm | Squamous epithelial cells  | 0   | 0  |
| CEA PO<br>Carcinoembryonic antigen, poly<br>(Cytopl)      | All columnar epithelial cells - luminal accentuation and reaction of the cytoplasm | Squamous epithelial cells, granulocytes and macrophages                  | Granulocytes and macrophages                                    | Gall canaliculi and Kupfer cells             |
| CGA-PO<br>Chromogranin A, poly<br>(Cytopl)                | Endocrine cells and peripheral nerves - ganglion cells and axons                   | 0  | Endocrine cells in the islets of Langerhans                     | Peripheral nerves                            |
| CGA<br>Chromogranin A, mono                               | Endocrine cells and peripheral nerves - ganglion cells and axons                   | 0  | Endocrine cells in the islets of Langerhans                     | Peripheral nerves                            |
| CK5<br>Cytokeratin 5<br>(Cytopl)                          | Mesothelial cells  | Squamous epithelial cells  | Negative  | Negative                                     |
| CK5/6<br>Cytokeratin 5/6<br>(Cytopl)                      | Mesothelial cells  | Squamous epithelial cells  | Negative  | Negative                                     |
| CK7<br>Cytokeratin 7<br>(Cytopl)                          | Mesothelial cells - occasionally a few columnar epithelial and endothelial cells   | Squamous epithelial cells  | Columnar epithelial cells of large ducts and intercalated ducts | Gall columnar epithelial cells               |
| CK8<br>Cytokeratin 8<br>(Cytopl)                          | Columnar epithelial cells & mesothelial cells                                      | A few squamous epithelial cells and focally fibroblastic reticulum cells | All columnar epithelial cells and islets of Langerhans          | Gall columnar epithelial cells & hepatocytes |
| CK13<br>Cytokeratin 13<br>(Cytopl)                        | Negative   | Suprabasal squamous epithelial cells                                     | Negative  | Negative                                     |
| <b>ANTIBODY</b>   | <b>APPENDIX</b>  | <b>TONSIL</b>  | <b>PANCREAS</b>   | <b>LIVER</b>                                 |
| CK14<br>Cytokeratin14<br>(Cytopl)                         | Mesothelial cells  | Squamous epithelial cells  | Negative  | Negative                                     |
| CK 18<br>Cytokeratin 18<br>(Cytopl)                       | Columnar epithelial cells & mesothelial cells                                      | Few squamous epithelial cells and focally fibroblastic reticulum cells   | All columnar epithelial cells and islets of Langerhans          | Gall columnar epithelial cells & hepatocytes |
| CK19<br>Cytokeratin 19<br>(Cytopl)                        | Columnar epithelial cells & mesothelial cells                                      | Few squamous epithelial cells  | Columnar epithelial cells of large ducts                        | Gall columnar epithelial cells               |
| CK20<br>Cytokeratin 20<br>(Cytopl)                        | Columnar epithelial cells and endocrine cells                                      | 0  | 0   | 0  |
| CK Sentinel node<br>mamma<br>Cytokeratin 7+19<br>(Cytopl) | Columnar epithelial cells & mesothelial cells occasionally endothelial cells       | Few squamous epithelial cells  | Columnar epithelial cells of large ducts and intercalated ducts | Gall columnar epithelial cells               |

|   |   |  |   |   |
|---|---|--|---|---|
| CK LMW (Cam5.2)<br>Low molecular weight<br>Cytokeratin<br>(Cytopl)  | Columnar epithelial<br>cells & mesothelial cells  | A few squamous<br>epithelial cells and<br>focally fibroblastic<br>reticulum cells                    | All columnar<br>epithelial cells and<br>islets of Langerhans                  | Gall columnar epithelial<br>cells & hepatocytes         |
| CK HMW (34BE12)<br>High molecular weight<br>Cytokeratin<br>(Cytopl) | Negative - A few co-<br>lumnar epithelial cells<br>might be positive.<br>Mesothelial cells are<br>positive.                   | Squamous<br>epithelial cells   | Negative - A few<br>columnar epithelial<br>cells (ducts) might be<br>positive | Negative - Gall<br>epithelial cells can be<br>positive. |
| CK Pan (AE1/AE3)<br>Pan cytokeratin<br>(Cytopl)                     | Columnar epithelial<br>cells & mesothelial cells  | Squamous<br>epithelial cells and<br>focally fibroblastic<br>reticulum cells                          | All columnar<br>epithelial cells and<br>islets of Langerhans                  | Gall columnar epithelial<br>cells & hepatocytes         |
| CK Pan (KL1)<br>Pan cytokeratin<br>(Cytopl)                         | Columnar epithelial<br>cells & mesothelial cells  | Squamous epithelial<br>cells an focally<br>fibroblastic reticulum<br>cells                           | All columnar<br>epithelial cells and<br>islets of Langerhans                  | Gall columnar epithelial<br>cells & hepatocytes         |
| CK PAN (MNF116)<br>Pan cytokeratin<br>(Cytopl)                      | Columnar epithelial<br>cells & mesothelial cells  | Squamous<br>epithelial cells an<br>focally fibroblastic<br>reticulum cells                           | All columnar<br>epithelial cells and<br>islets of Langerhans                  | Gall columnar epithelial<br>cells & hepatocytes         |
| COL IV<br>Collagen IV<br>(Extra cell)                               | Basal membrane under<br>the epithelial surface<br>and muscle cells  | Basal membrane under<br>the epithelial surface   | Muscle cells  | Muscle cells  |
| CR<br>Calretinin<br>(Cytopl & nuclear)                              | Peripheral nerves -<br>ganglion cells and<br>axons - macrophages<br>and mesothelial cells                                     | Macrophages  | Peripheral nerves -<br>ganglion cells and<br>axons - macrophages              | 0   |
| CYD1<br>Cyclin D1<br>(Nuclear)                                      | Few basal columnar<br>epithelial cells  | Parabasal squamous<br>epithelial cells and few<br>fibroblastic cells                                 | Few basal columnar<br>epithelial cells  | 0   |
| D2-40<br>(Cytopl)   | Lymphatic endothelial<br>cells - endothelial cells<br>in blood vessels are<br>negative Mesothelial<br>cells and Schwann cells | Lymphatic endothelial<br>cells, basal squamous<br>epithelial cells and<br>follicular dendritic cells | Lymphatic endothelial<br>cells  | Lymphatic<br>endothelial cells                          |
| <b>ANTIBODY</b>   | <b>APPENDIX</b>   | <b>TONSIL</b>  | <b>PANCREAS</b>   | <b>LIVER</b>  |
| DES<br>Desmin<br>(Cytopl)   | Lamina muscularis,<br>smooth muscle cells in<br>small vessels in lamina<br>propria  | Smooth muscle cells in<br>small vessels  | Smooth muscle cells in<br>small vessels                                       | Smooth muscle cells in<br>small vessels                 |
| E-CAD<br>E-cadherin<br>(Membrane)                                   | Membranes of<br>columnar epithelial<br>cells  | Membranes of<br>squamous epithelial<br>cells   | Membranes of<br>columnar epithelial<br>cells (ducts)                          | Hepatocytes - weak<br>membranous                        |
| ELA<br>Elastase<br>(Cytopl)   | Neutrophile<br>granulocytes   | Neutrophile<br>granulocytes  | Neutrophile<br>granulocytes   | Neutrophile<br>granulocytes                             |
| EMA<br>Epithelial membrane<br>antigen<br>(Membrane & cytopl)        | Membranes of<br>columnar epithelial<br>cells  | Membranes of<br>squamous epithelial<br>cells and plasma cells  | All epithelial cells  | 0   |
| EP4<br>Epithelial protein<br>(Membrane)                             | Membranes of<br>columnar epithelial<br>cells  | Weak reaction of<br>squamous epithelial<br>cells   | All epithelial cells  | Gall columnar<br>epithelial cells                       |

|  |   |  |  |  |
|--|---|--|--|--|
| EPRA<br>Epithelial related antigen<br>(Membrane)   | Membranes of columnar epithelial cells  | Weak reaction of squamous epithelial cells                           | All epithelial cells                                     | Gall columnar epithelial cells                 |
| FVIII<br>Factor VIII<br>(Cytopl)                   | Endothelial cells in all vessels  | Endothelial cells in all vessels                                     | Endothelial cells in all vessels                         | Weak reaction of endothelial cell in sinusoids |
| GLU<br>Glucagon<br>(Cytopl)                        | 0   | 0  | Few endocrine (a-type) cells in the islets of Langerhans | 0  |
| GRANZYME<br>Granzyme B<br>(Cytopl)                 | T-lymphocytes   | T-lymphocytes and NK-cells   | 0  | 0  |
| H-CALDES<br>H-caldesmon<br>(Cytopl)                | Lamina muscularis, smooth muscle cells in small vessels in lamina propria and myofibroblasts under the epithelial surface | Smooth muscle cells in small vessels                                 | Smooth muscle cells in small vessels                     | Smooth muscle cells in small vessels           |
| HEPA<br>Hepatocyte associated antigen<br>(Cytopl)  | Negative - occasionally a few columnar epithelial cells are positive.   | 0  | 0  | Hepatocytes                                    |
| IgK Cytopl<br>Immunoglobulin kappa<br>(Cytopl)     | Plasma cells  | Plasma cells   | Plasma cells   | Plasma cells                                   |
| IgK Membrane<br>Immunoglobulin kappa<br>(Membrane) | App 60% of the mantle zone B-cells should show a membranous reaction  | App 60% of the mantle zone B-cells should show a membranous reaction | 0  | 0  |
| IgL Cytopl<br>Immunoglobulin lambda<br>(Cytopl)    | Plasma cells  | Plasma cells   | Plasma cells   | Plasma cells                                   |
| IgM Cytopl<br>Immunoglobulin lambda<br>(Cytopl)    | App 40% of the mantle zone B-cells should show a membranous reaction  | App 40% of the mantle zone B-cells should show a membranous reaction | 0  | 0  |
| <b>ANTIBODY</b>                                    | <b>APPENDIX</b>   | <b>TONSIL</b>  | <b>PANCREAS</b>  | <b>LIVER</b>                                   |
| IgM Cytopl<br>Immunoglobulin my<br>(Cytopl)        | Plasma cells  | Plasma cells   | Plasma cells   | Plasma cells                                   |
| IgM Membrane<br>Immunoglobulin my<br>(Membrane)    | Almost all mantle zone B-cells should show a membranous reaction  | Almost all mantle zone B-cells should show a membranous reaction     | 0  | 0  |
| IgE<br>Immunoglobulin epsilon<br>(Cytopl)          | Mast cells and plasma cells   | Mast cells and plasma cells  | 0  | 0  |
| INS<br>Insulin<br>(Cytopl)                         | 0   | 0  | Few endocrine (B-type) cells in the islets of Langerhans | 0  |
| KI67<br>(Nuclear)                                  | Basal columnar epithelial cells and germinal centre cells   | Basal columnar epithelial cells and germinal centre cells            | 0  | 0  |

|  |   |  |  |  |
|--|---|--|--|--|
| LAM<br>Laminin<br>(Extra cellular)                 | Basal membrane under the epithelial surface and muscle cells  | Basal membrane under the epithelial surface  | Muscle cells                                 | Muscle cells                                 |
| LAT<br>Linker for Activation T-cells<br>(Membrane) | All T-cells isolated in T-cell in germinal centres - platelets in vessels and mast cells are positive | All T-cells - isolated T-cell in germinal centres - platelets in vessels are positive                          | T-cells                                      | T-cells                                      |
| LYS<br>Lysozyme<br>(Cytopl)                        | Neutrophile granulocytes and macrophages  | Neutrophile granulocytes and macrophages   | Neutrophile granulocytes and macrophages     | Neutrophile granulocytes and macrophages     |
| MAC387<br>(Cytopl)                                 | Neutrophile granulocytes and macrophages  | Neutrophile granulocytes and macrophages   | Neutrophile granulocytes and macrophages     | Neutrophile granulocytes and macrophages     |
| MAP2<br>(Cytopl)                                   | Ganglion cells  | 0  | Enocrine cells in the islets of Langerhans   | 0  |
| MCM3<br>Mini chromosome maintenance<br>(Nuclear)   | Basal columnar epithelial cells and germinal centre cells   | Parabasal squamous epithelial cells and germinal centre cells (all nuclei) Mantle zone B-cells almost negative | 0  | 0  |
| MLH1<br>DNA mismatch repair<br>(Nuclear)           | All nuclei - smooth muscle and stroma cells   | All nuclei   | All nuclei                                   | All nuclei                                   |
| MSH2<br>DNA mismatch<br>(Nuclear)                  | All nuclei - smooth muscle and stroma cells   | All nuclei   | All nuclei                                   | All nuclei                                   |
| MSH6<br>DNA mismatch<br>(Nuclear)                  | All nuclei - smooth muscle and stroma cells   | All nuclei   | All nuclei                                   | All nuclei                                   |
| MUC2<br>Mucine 2<br>(Cytopl)                       | Few columnar epithelial cells   | 0  | 0  | 0  |
| MUM1<br>(Nuclear)                                  | Plasma cells  | Plasma cells and some germinal B-cells   | Plasma cells                                 | Plasma cells                                 |
| N-CAD<br>N-Cadherin<br>(Membrane)                  | Peripheral nerves - ganglion cells and axons - mesothelial cells                                      | 0  | Islets of Langerhans                         | Hepatocytes                                  |
| <b>ANTIBODY</b>                                    | <b>APPENDIX</b>   | <b>TONSIL</b>  | <b>PANCREAS</b>                              | <b>LIVER</b>                                 |
| NEUN<br>(Nuclear & cytopl)                         | Peripheral nerves ganglion cells - reaction of golgi apparatus in epithelium and mesothelial cells    | Cytoplasmic reaction of squamous epithelial cells  | 0  | 0  |
| NF<br>Neurofilament protein<br>(Cytopl)            | Peripheral nerves - ganglion cells and axons  | Occasionally plasma cells  | Peripheral nerves - ganglion cells and axons | Peripheral nerves - ganglion cells and axons |
| NGFR<br>Nerve growth factor receptor<br>(Membrane) | Schwann cells and perineural cells  | Follicular dendritic cells and basal squamous epithelial cells   | 0  | 0  |
| NSE<br>Neuron specific enolase<br>(Cytopl)         | Peripheral nerves   | Weak reaction of lymphocytes   | Islets of Langerhans                         | 0  |

|   |  |  |                                      |                                      |
|---|--|--|--------------------------------------|--------------------------------------|
| Oct-2<br>Oct-2 protein<br>(Nuclear)                   | Strong reaction in germinal centre B-cells - weak reaction in mantle zone B-cells and plasma cells | Strong reaction in germinal centre B-cells - weak reaction in mantle zone B-cells and plasma cells | 0                                    | 0                                    |
| PAL<br>Prealbumin<br>(Cytopl)                         | 0  | 0  | Islets of Langerhans                 | 0                                    |
| PAX5<br>(Nuclear)                                     | All B-cells (except plasma cells)  | All B-cells inclusive germinal centre B-cells (except plasma cells)                                | 0                                    | 0                                    |
| PERIPHERIN<br>(Cytopl)                                | Peripheral nerves - ganglion cells and axons   | 0  | 0                                    | 0                                    |
| PGP<br>Protein gene product 9,5<br>(Cytopl)           | Peripheral nerves - ganglion cells and axons   | Follicular dendritic cells and macrophages   | Islets of Langerhans                 | 0                                    |
| Plasma cell<br>(Cytopl)                               | Plasma cells - reaction of columnar epithelial cells   | Plasma cells - reaction of columnar epithelial cells   | All epithelial cells                 | Hepatocytes                          |
| PMA<br>Pan muscle actin<br>(Cytopl)                   | Lamina muscularis, smooth muscle cells in small vessels in lamina propria                          | Smooth muscle cells in small vessels   | Smooth muscle cells in small vessels | Smooth muscle cells in small vessels |
| PMS2<br>DNA mismatch repair<br>(Nuclear)              | All nuclei - smooth muscle and stroma cells  | All nuclei   | All nuclei                           | All nuclei                           |
| PP<br>Pancreatic polypeptide<br>(Cytopl)              | 0  | 0  | F-cells in the islets of Langerhans  | 0                                    |
| PROHIBITIN<br>(Cytopl)                                | Mitochondria in almost all cells   | Mitochondria in almost all cells   | Mitochondria in almost all cells     | Mitochondria in almost all cells     |
| S100 poly<br>(Nuclear & cytopl)                       | Peripheral nerves - ganglion cells and axons, macrophages and fat cells                            | Macrophages and follicular dendritic cells   | Islets of Langerhans                 | Kupfer cells                         |
| <b>ANTIBODY</b>                                       | <b>APPENDIX</b>  | <b>TONSIL</b>  | <b>PANCREAS</b>                      | <b>LIVER</b>                         |
| S100B<br>(Nuclear & cytopl)                           | Peripheral nerves - ganglion cells and axons, macrophages and fat cells                            | Macrophages  | Islets of Langerhans                 | Kupfer cells                         |
| SMMS1<br>Smooth muscle myosin heavy chain<br>(Cytopl) | Lamina muscularis, smooth muscle cells in the membrane under the epithelial surface                | Smooth muscle cells in small vessels. Weak reaction of follicular dendritic cells                  | Smooth muscle cells in small vessels | Smooth muscle cells in small vessels |
| SOMATOSTATIN<br>(Cytopl)                              | Occasionally endocrine cells   | 0  | D-cells in the islets of Langerhans  | 0                                    |
| STN<br>Sialosyl-TN<br>(Cytopl)                        | Columnar epithelial cells (most goblet cells)  | Squamous epithelial cells  | 0                                    | 0                                    |
| SYNAPTOPHYSIN<br>(Cytopl)                             | Peripheral nerves - ganglion cells and axons. Endocrine cells                                      | 0  | Islets of Langerhans                 | Peripheral nerves                    |

|   |   |   |   |   |
|---|---|---|---|---|
| SYNAPSIN<br>(Cytopl)  | Peripheral nerves - ganglion cells and axons. Endocrine cells | 0   | Islets of Langerhans                                | Peripheral nerves                       |
| TCR-AB<br>T-cell, alfa-beta rec<br>(Cytopl)                 | Almost all T-cells  | Almost all T-cells  | 0   | 0                                       |
| TCR-GD<br>T-cell, gamma-delta rec<br>(Cytopl)               | Few T-cells in lamina propria                                 | Few T-cells in the interfollicular zone   | Occasionally reaction of epithelial cells           | 0                                       |
| TENASCIN<br>(Extra cellular)                                | Membrane under the epithelial surface and smooth muscle cells | Membrane under the epithelial surface and smooth muscle cells                                     | 0   | 0                                       |
| THROMBO<br>Thrombomodulin<br>CD141<br>(Membrane and cytopl) | Endothelial cells and mesothelial cells                       | Endothelial cells and basal squamous epithelial cells   | Endothelial cells and islets of Langerhans          | Endothelial cells                       |
| TIA1<br>TIA1-Protien  | T-cells in lamina propria                                     | T-cells   | T-cells   | T-cells                                 |
| TRYPTASE<br>(Cytopl)  | Mast cells  | Mast cells  | Mast cells  | Mast cells                              |
| VILLIN<br>(Membrane)  | Villi at the surface of the epithelial cells                  | 0   | Villi at the surface of the epithelial cells        | Villi at the surface of the hepatocytes |
| VIMENTIN<br>(Cytopl)  | Lymphocytes, endothelial cells and peripheral nerves          | Lymphocytes, endothelial cells and peripheral nerves  | Lymphocytes endothelial cells and peripheral nerves | Kupfer cells                            |
| ZAP 70<br>(Nuclear & Cytopl)                                | Almost all T-cells  | Almost all T-cells - isolated T-cells. In germinal centres few centrocytes may show weak reaction | T-cells   | T-cells                                 |

This product is manufactured and distributed by QC Sciences™ Glen Allen, VA 23060.