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| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog**  **Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| Akt 3 | AKT3 | Signaling, Apoptosis | Abgent | AP7030a | Rabbit,  Polyclonal | 1:100 | Cytoplasmic | Breast cancer |
| Phospho-Akt (Thr308) | Phospho-AKT3 | Signaling, Apoptosis | Cell Signaling | 9266 | Rabbit,  244F9H2 | 1:10 | Cytoplasmic | Breast cancer |
| Bax | BAX | Apoptosis | Cell Signaling | 2774 | Rabbit,  polyclonal | 1:10 | Cytoplasmic | Lung cancer |
| Bcl2 | BCL2 | Apoptosis | Dako | M 0887 | Mouse,  124 | 1:100 | Cytoplasmic | Kidney |
| Bcl-X | BCL2L1 | Apoptosis | Diagnostic  Biosystems | Mob 248 | Mouse,  2H12 | 1:10 | Cytoplasmic,  cell membrane | Tonsil |
| Bcl2L1 | BCL2L1 | Apoptosis | Abcam | ab17834 | Mouse,  SPM165 | 1:200 | perinuclear | Melanoma |
| BMI1 | BMI1 | Transcription | Abgent | AP2513c | Rabbit,  polyclonal | 1:25 | Cytoplasmic | Breast cancer |
| B-Raf | BRAF | Signaling, Apoptosis | Epitomics | 1647-1 | Rabbit,  EP152Y | 1:50 | Cytoplasmic | Prostate cancer |
| E-Cadherin | CDH1 | Cell-cell contact | Chemicon | IHCR2123-6 | Mouse, 36B5 | r-t-u | Cell membrane | Breast cancer |
| P-Cadherin | CDH3 | Cell-cell contact | BD Biosciences | 610227 | Mouse,  56 | 1:20 | Cell membrane | Placenta |
| β-Catenin | CTNNB1 | Cell-cell contact | Cell Signaling | 9562 | Rabbit, polyclonal | 1:250 | Cytoplasmic, nuclear,  cell membrane | Breast cancer |
| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| Phospho-β-Catenin | Phospho-  CTNNB1 | Cell-cell contact | Cell Signaling | 9561 | Rabbit, polyclonal | 1:50 | Nuclear | Breast cancer |
| Caveolin | CAV1 | Cell-cell contact | BD  Biosciences | 610059 | Rabbit, polyclonal | 1:1000 | Cell membrane | Placenta |
| CD20 | MS4A1 | Differentiation,  Stem cell marker cand. | Zytomed | BMS003 | Mouse,  L26 | 1:1 | Cell membrane cytoplasmic | Tonsil |
| CD44 | CD44 | Cell-cell contact,  Stem cell marker cand. | Lab Vision | MS-668-R7 | Mouse,  156-3C11 | 1:2000 | Cell membrane | Tonsil |
| CD49d | ITGA4 | Cell-cell contact,  Stem cell marker cand. | Acris | AP00455PU-N | Rabbit,  polyclonal | 1:50 | Cell membrane | Breast cancer |
| CD 117  (c-kit) | KIT | Proliferation,  Stem cell marker cand. | Dako | A4502 | Rabbit,  polyclonal | 1:600 | Cell membrane cytoplasmic | Colorectal cancer |
| CD 166 | ALCAM | Cell-cell contact,  Stem cell marker cand. | Abcam | ab49496 | Mouse,  MOG/07 | 1:50 | Cell membrane | Prostate cancer |
| CD 171 | L1CAM | Cell-cell contact | Sigma | HPA005830 | Rabbit | 1:350 | Cytoplasmic | Breast cancer |
| CDK2 | CDK2 | Cell cycle | Thermo Scientific | MS-617-P1 | Mouse, 2B6 + 8D4 | 1:200 | Cytoplasmic, nuclear | Tonsil |
| c-Myc | MYC | Cell cycle, Proliferation | Santa Cruz | sc-70463 | Mouse, monoclonal | 1:500 | Cytoplasmic, nuclear | Colorectal cancer |
| Cox-2 | MT-CO2 | Metabolism | Cayman | 160112 | Mouse,  monoclonal | 1:200 | Cytoplasmic | Colorectal cancer |
| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog**  **Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| CXCR4 | CXCR4 | Cell-cell contact,  Stem cell marker cand. | Acris | SP4106P | Rabbit,  polyclonal | 1:750 | Cytoplasmic,  cell membrane | Breast cancer |
| Cyclin A | CCNA1 | Cell cycle | Novo Castra | NCL-CYCLIN A | Mouse,  6E6 | 1:50 | nuclear | Tonsil |
| Cyclin D1 | CCND1 | Cell cycle | Novo Castra | NCL-CYCLIN D1 | Mouse,  DCS-6 | 1:20 | Nuclear, cytoplasmic | Breast cancer |
| Eph B2 | EPHB2 | Cell-cell contact | Abcam | ab5418 | Rabbit,  polyclonal | 1:100 | Cell membrane  cytoplasmic | Breast cancer |
| ephrin-B2 | EFNB2 | Cell-cell contact | Santa Cruz | sc-15397 | Rabbit, polyclonal | 1:50 | Cell membrane  cytoplasmic | Melanoma |
| Ezrin | EZR | Signaling | Abcam | ab4069 | Mouse,  3C12 | 1:100 | Cell membrane | Lung Cancer |
| Fas | FAS | Apoptosis | Cell Signaling | 4233 | Rabbit,  C18C12 | 1:10 | Cytoplasmic | Colorectal cancer |
| FZD-7 | FZD7 | Signaling | Acris | SP4149P | Rabbit,  polyclonal | 1:250 | Cytoplasmic | Placenta |
| Glut-1 | SLC2A1 | Metabolism | Acris | AM00389PU-N | Mouse, SPM498 | 1:200 | Cell membrane | Breast cancer |
| HIF-1α | HIF1A | Metabolism | R+D | MAB1935 | Mouse,  241812 | 1:20 | Cytoplasmic, nuclear | Breast cancer |
| Anti-Melanosome HMB45 | -/- | Differentiation | Dako | M0634 | Mouse, HMB45 | 1:50 | Cytoplasmic | Melanoma |
| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| IGF-2 | IGF2 | Proliferation | Abcam | ab9574 | Rabbit,  polyclonal | 1:200 | Cytoplasmic | Placenta |
| iNOS | ISYNA1 | Metabolism | Abcam | ab53769 | Rabbit,  polyclonal | 1:200 | Cytoplasmic | Lung cancer |
| Ki-67 | MKI67 | Cell cylce, Proliferation | Dako | M 7240 | Mouse,  MIB-1 | 1:100 | Nuclear | Skin |
| MHC 1 | MYH11 | Cell-cell contact | Abcam | ab682 | Mouse,  3F8 | 1:100 | Cell membrane | Kidney |
| Melan A | MLANA | Differentiation | Novo Castra | NCL-MelanA | Mouse,  A103 | 1:50 | Cytoplasmic | Skin |
| MITF | MITF | Differentiation | Dako | M3621 | Mouse,  D5 | 1:50 | Nuclear | Melanoma |
| MLH 1 | MLH1 | DNA repair | BD Pharmingen | 551091 | Mouse,  G168-15 | 1:50 | Nuclear, cytoplasmic | Colorectal cancer |
| MSH2 | MSH2 | DNA repair | Calbiochem | NA27 | Mouse,  FE11 | 1:40 | Nuclear, cytoplasmic | Colorectal cancer |
| MTAP | MTAP | Metabolism | ProteinTechGroup | 11475-1-AP | Rabbit,  polyclonal | 1:500 | Cytoplasmic | Breast cancer |
| MTSS1 | MTSS1 | Cytoskeletal remodeling | Abnova | H00009788-M01 | Mouse, [2G9](http://www.abnova.com/products/products_detail.asp?Catalog_id=H00009788-M01) | 1:500 | Nuclear, cytoplasmic | Colorectal cancer |
| MUM1p | IRF4 | Transcription | Santa Cruz | sc-56713 | Mouse,  monoclonal | 1:10 | Nuclear, cytoplasmic | Breast cancer |
| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog**  **Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| NF-κВ | RELA | Transcription | Santa Cruz | sc-8008 | Mouse,  F-6 | 1:500 | Nuclear, cytoplasmic | Breast cancer |
| N-Ras | NRAS | Signaling | Santa Cruz | sc-31 | Mouse,  F155 | 1:50 | Cytoplasmic | Lymph node |
| p14 | CDKN2A | Cell cycle | Cell Signaling | 2407 | Mouse, 4C6/4 | 1:10 | Nuclear, cytoplasmic | Breast cancer |
| p15 | CDKN2B | Cell cycle | Acris | DM379 | Mouse,  15P06 | 1:25 | Nuclear | Colorectal cancer |
| p16 | CDKN2A | Cell cycle | Santa Cruz | sc-1661 | Mouse,  F-12 | 1:50 | Nuclear | Colorectal cancer |
| p21 | CDKN1A | Cell cycle | Dako | M 7202 | Mouse,  SX118 | 1:50 | Nuclear | Colorectal cancer |
| p27 | CDKN1B | Cell cycle | Dako | M 7203 | Mouse,  SX53G8 | 1:50 | Nuclear | Lymph node |
| p53 | TP53 | Cell cycle, Apoptosis | Dako | M 7001 | Mouse,  DO-7 | 1:25 | Nuclear, cytoplasmic | Breast cancer |
| p75 (NGFR) | NGFR | Differentiation | Abcam | ab52987 | Rabbit,  EP1039Y | 1:100 | Cell membrane | Placenta |
| PGF | PGF | Proliferation | ProteinTechGroup | 10642-1-AP | Rabbit,  polyclonal | 1:50 | Cytoplasmic | Breast cancer |
| PMP2 | PMP2 | Differentiation | ProteinTechGroup | 12717-1-AP | Rabbit,  polyclonal | 1:100 | Cytoplasmic | Glioma |
| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| PPAR α | PPARA | Signaling | Abcam | ab8934 | Rabbit,  polyclonal | 1:500 | Cytoplasmic, nuclear | Breast cancer |
| PTEN | PTEN | Signaling | Cell Signaling | 9559 | Rabbit,  138G6 | 1:100 | Cytoplasmic | Colorectal cancer |
| Rb | RB1 | Cell cycle | Calbiochem | OP66 | Mouse,  LM95.1 | 1:50 | Nuclear | Colorectal cancer |
| Phospho-Rb | Phospho-RB1 | Cell cycle | Cell Signaling | 9308 | Rabbit,  polyclonal | 1:50 | Nuclear | Colorectal cancer |
| Ro-52 | TRIM21 | Autoimmunology | Santa Cruz | sc-25351 | Mouse,  D-12 | 1:200 | Nuclear | n. d. |
| Survivin | BIRC5 | Apoptosis | Cell Signaling | 2808 | Rabbit,  71G4 | 1:100 | Nuclear | Colorectal cancer |
| SKP2 | SKP2 | Cell cycle | Zytomed | 519-13884 | Rabbit,  polyclonal | 1:200 | Nuclear, cytoplasmic | Prostate cancer |
| STAT1 | STAT1 | Signaling | Cell Signaling | 9175 | Rabbit,  42H3 | 1:200 | Cytoplasmic, nuclear | Colorectal cancer |
| Phospho-STAT1(S727) |  | Signaling | Abcam | ab47754 | Rabbit,  polyclonal | 1:100 | Cytoplasmic, nuclear | Breast cancer |
| S1P1 | S1PR1 | Cell cycle | Cayman | 10005228 | Rabbit,  polyclonal | 1:50 | Cytoplasmic | Breast cancer |
| TGF-β1 | TGFB1 | Proliferation | Zytomed | 520-11264 | Rabbit,  polyclonal | 1:25 | Cytoplasmic, cell membrane | Colorectal cancer |
| **Protein**  **Name** | **HUGO: Approved Symbol** | **Functional Group** | **Source** | **Catalog Number** | **Clone** | **Dilution** | **Cellular**  **Localization** | **Positive Control** |
| Topoisomerase IIα | TOP2A | DNA repair | Dako | M7186 | Mouse,  Ki-S1 | 1:100 | Nuclear, cytoplasmic | Placenta |
| VEGFR-2 | KDR | Proliferation | Cell Signaling | 2479 | Rabbit,  55B11 | 1:200 | Cytoplasmic | Colorectal cancer |
| XIAP (Birc4) | XIAP | Apoptosis | Lifespan | LS-C43112 | Rabbit,  polyclonal | 1:1000 | Cytoplasmic | Placenta |

**Supplementary Table S2**