

Paradigm provides the option to include advanced immunohistochemical testing (IHC) as part of your PCDx test order.

The addition of these IHCs to our existing next-generation sequencing (NGS)-based offering provides greater insights into the biology of your patient's tumor by assessing DNA as well as Protein. More importantly, these product enhancements will enable greater potential for associations to many cytotoxic agents and targeted clinical trials.

## PCDx Full IHC Panel List

| IHC                    | NAME   | CLINICAL UTILITY                               | TUMOR TYPES WITH STRONGEST EVIDENCE  |
|------------------------|--|--|--|
| ALK                    | Anaplastic Lymphoma Receptor Tyrosine Kinase                   | Use of ALK inhibitors                          | NSCLC, Thyroid, CRC  |
| AR                     | Androgen Receptor  | Use of androgen deprivation therapy            | Breast, Prostate   |
| CAIX                   | Carbonic Anhydrase 9   | Use of doxorubicin, IL2, fluoropyrimidines     | CRC, Kidney, Breast, GBM   |
| ER                     | Estrogen Receptor  | Use of anti-estrogens                          | Breast   |
| hENT1                  | Human Equilibrative Nucleoside Transporter 1                   | Use of gemcitabine                             | Pancreatic, NSCLC, Cholangiocarcinoma, Bladder, Ampulla of Vater, Breast, Gastric, Esophageal  |
| HER2                   | Human Epidermal Growth Factor Receptor 2                       | Use of HER2 targeted agents                    | Breast, Gastric Esophageal   |
| IDO                    | Indoleamine 2,3-dioxygenase                                    | Clinical trials of anti-IDO therapy            | Ovarian  |
| MET                    | Mesenchymal Epithelial Transition Factor                       | Clinical trials of MET inhibitors              | Colon, Rectal, Esophageal, Gastroesophageal, Head, Neck, NSCLC, Thyroid, Uterine, Solid Tumors |
| MGMT                   | O-6-methylguanine-DNA Methyltransferase                        | Use of methylating agents such as temozolomide | CRC, CNS, Uterine, NET   |
| PD1                    | Programmed Death 1   | Clinical trials of anti-PD1/PD-L1 therapy      | Cervical, Prostate   |
| PD-L1                  | Programmed Death Ligand 1                                      | Use of anti-PD1/PD-L1 therapy                  | Melanoma   |
| PR                     | Progesterone Receptor  | Use of anti-estrogens                          | Breast   |
| PTEN                   | Phosphatase and Tensin Homolog                                 | Use of anti-EGFR therapy                       | CRC, NSCLC, Pancreatic, Gastric, Esophageal, Prostate, NET                                     |
| RET                    | Rearranged during Transfection                                 | Clinical trials of anti-RET therapy            | NSCLC  |
| ROS1                   | ROS Proto-Oncogene 1 Receptor Tyrosine Kinase                  | Use of ALK inhibitors                          | NSCLC  |
| TOPO1                  | Topoisomerase (DNA) 1  | Use of topoisomerase I inhibitors              | CRC, Ovarian   |
| TP                     | Thymidylate Phosphorylase                                      | Use of fluoropyrimidines                       | Breast, CRC, NSCLC, Gastric, Esophageal  |
| TRKpan                 | Tropomyosin Receptor Kinase                                    | Clinical trials of TRK inhibitors              | Solid Tumors   |
| TS                     | Thymidylate Synthase   | Use of fluoropyrimidines                       | Breast, CRC, NSCLC, Gastric, Mesothelioma  |
| TUBB3                  | Tubulin, Beta 3 Class III                                      | Use of anti-tubulin therapy                    | NSCLC, Prostate, Breast, Ovarian, Gastric, Thymic, CUP, Gastric, HNSCC, Uterine                |
| MLH1, MSH2, MSH6, PMS2 | MutL homolog 1, mutS homolog 2, mutS homolog 6, PMS1 homolog 2 | Use of pembrolizumab                           | CRC  |

