

| id | title | alias[] | antibody. set[] | picture_url | description 1 | description 2 | description 3 | popularity |
|-----------|--------------|--------------------------|-------------------------------------------------------------|--------------------|----------------------------|-------------------------|-------------------------------------------------------------|-------------------|
| CD19 | CD19 | | | | cytoplasmic and membranous | tonsil | pan-B cell markers | 4 |
| CD20 | CD20 | L26 | | | cytoplasmic and membranous | tonsil, lymph node | pan-B cell markers | 5 |
| CD21 | CD21 | | histiocytic/ dendric cell lesions;Lymphoma | | cytoplasmic, membrane | tonsil, lymph node | B cells, follicular dendritic cells(FDC), other | 4 |
| CD22 | CD22 | | | | cytoplasmic and membranous | | pan-B cell markers | 2 |
| CD23 | CD23 | | histiocytic/ dendric cell lesions | | membranous and Golgi(pan) | tonsil | B cells, follicular dendritic cells(FDC), monocytes | 4 |
| CD24 | CD24 | | | | | | | 2 |
| CD25 | CD25 | | IL-2α;Interleukin-2alpha;IL2 receptor | | membranous and cytoplasmic | tonsil, mastocytoma | activated T and B cells | 2 |
| CD26 | CD26 | | | | | | | 1 |
| CD30 | CD30 | ki-1;Ber H2 | Testicular germ cell tumours;Germ cell | | membranous | classic Hodgkin | activated B(immunoblasts) and T lymphocytes | 4 |
| CD31 | CD31 | | Skin : spindle cell tumor;Immunophenotype | | cytoplasmic and membranous | tonsil | endothelial cells, megakaryocytes, macrophages | 2 |
| CD32 | CD32 | | FcgR II;Fc gamma receptors II | | | | | 2 |
| CD33 | CD33 | | | | membranous | acute myeloid leukaemia | flow marker, myeloid cells, monocytes | 2 |
| CD34 | CD34 | | Immunohistochemistry of Prostatic mesenchymal stromal cells | | membranous | tonsil, placenta | endothelial cells, fibroblasts and hematopoietic stem cells | 4 |
| CD35 | CD35 | | histiocytic/ dendric cell lesions;Lymphoma | | membranous | tonsil | B cells, follicular dendritic cells(FDC), other | 3 |
| CD38 | CD38 | | | | cytoplasmic, membrane | plasma cell myeloma | immature lymphocytes, plasma cells | 3 |
| CD39 | CD39 | | | | | | | 2 |
| CD40 | CD40 | | | | | | | 2 |
| CD43 | CD43 | | | | membranous | tonsil, lymph node | T cells, myelocytes | 3 |
| CD43RO | CD43RO | | | | | | | 3 |
| CD44 | CD44 | | Reactive urothelial atypia vs. carcinoma | | membranous | benign urothelium | normal urothelium (basal layer), also consider | 3 |
| CD44V6 | CD44V6 | | Marker expression in benign and malignant thyroid lesions | | | | | 3 |
| CD45 | CD45 | leukocyte common antigen | Differential Diagnosis of Small Round Cell Tumors | | membranous | tonsil, lymph node | pan-leukocytes marker (lymphocytes, myeloid cells) | 5 |
| CD45RB | CD45RB | | | | | | | 1 |
| CD45RA | CD45RA | | | | | | | 1 |
| CD45RO | CD45RO | | | | membranous | tonsil | | 4 |
| CD51 | CD51 | | | | | | | 2 |
| CD52 | CD52 | | | | | | | 1 |
| CD54 | CD54 | | | | | | | 1 |
| CD56 | CD56 | N-CAM;NCAM;NCAM1 | Immunophenotype of Mediastinal neuroblastoma | | cytoplasmic, membrane | neuroblastoma | neuroendocrine cells, schwann cells, NK cells | 5 |
| CD57 | CD57 | Leu-7;Leu7 | Immunophenotype of Mediastinal neuroblastoma | | membranous | tonsil | neuroendocrine cells, schwann cells, NK cells | 4 |
| CD58 | CD58 | | | | | | | 2 |
| CD61 | CD61 | | | | cytoplasmic | bone marrow | flow marker, Megakaryocytes, platelets | 1 |
| CD63 | CD63 | NKI/C3 | Melanotic Lesions;Spindle cell melanoma | | cytoplasmic, membrane | melanoma | | 2 |
| CD66C | CD66c | | | | | | | 1 |

Supplementary Fig. S4. An example of a patient's immunohistochemistry profile dataset for training and validation of the diagnosis precision algorithm.