Anti-Human CD74-166Er

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3166025D
Package size and concentration: 25 µg, 0.5 mg/mL
Storage: Store at 4 °C. Do not freeze.
Reactivity: Human, Rhesus, Olive Baboon

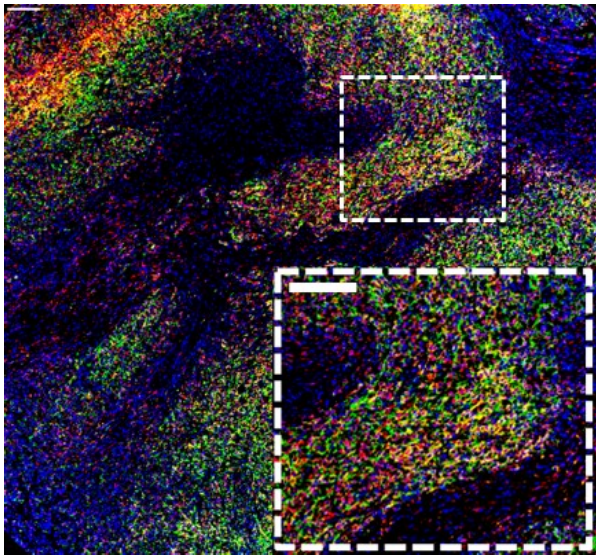
Clone: LN2
Isotype: Mouse IgG1
Formulation: Antibody stabilizer with 0.05% sodium azide
Application: IMC-Paraffin

Technical Information

Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

Quality control: Each lot of conjugated antibody is quality control-tested by Imaging Mass Cytometry on tissue sections.

Recommended concentration: For optimal performance it is recommended that the antibody be titrated for the desired application. Suggested initial dilution range:
IMC-Paraffin: 1:25 to 1:100



Human lymph node of diffuse large B cell lymphoma (FFPE) stained with 166Er-anti-CD74 (LN2) at a dilution of 1:50 (red pseudocolor), 161Dy-anti-CD20 (H1) (green pseudocolor), and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = 100 µm.

Description

The LN2 monoclonal antibody binds specifically to CD74, a type II transmembrane glycoprotein also known as MHC class II-associated invariant chain, MHC class II chaperone and MIF receptor. CD74 has four isoforms of 33 kDa, 35 kDa, 41 kDa and 43 kDa, which are splice variants. CD74 is weakly expressed on B cells, monocytes and macrophages. Reports have also shown CD74 expression on Langerhans cells, dendritic cells, some activated T cells and thymic epithelium. CD74 is primarily thought to function as an intracellular sorter of MHC class II molecules and regulator of exogenous peptide loading onto MHC class II. There have also been reports showing that CD74 is involved in positive selection of CD4+ T cells and modulation of B cell differentiation.

References

Chang, Q. et al. "Staining of frozen and formalin-fixed, paraffin-embedded tissues with metal-labeled antibodies for imaging mass cytometry analysis." *Current Protocols in Cytometry* 82 (2017): 12.47.1–12.47.8.

Giesen, C. et al. "Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry." *Nature Methods* 11 (2014): 417–22.