

Anti-Human CD45RA-166Er

Pathologist-Verified Clone for Imaging Mass Cytometry

Catalog: 3166031D Clone: HI100

Package size and concentration: 25 μg, 0.5 mg/mL Isotype: Mouse IgG2b

Storage: Store at 4 °C. Do not freeze. Formulation: Antibody stabilizer with 0.05% sodium azide

Reactivity: Chimpanzee, Human Application: IMC paraffin, IMC frozen

Technical Information

Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry $^{\text{TM}}$ (IMC $^{\text{TM}}$) using the Fluidigm Hyperion $^{\text{TM}}$ Imaging System on formalin-fixed, paraffin-embedded (FFPE) and frozen 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 IMC frozen: 1:50 to 1:200

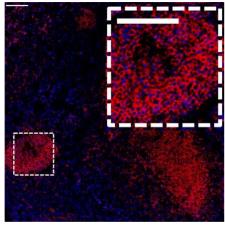
Description

CD45RA is a type I transmembrane glycoprotein. It is a specific splice variant of the transmembrane tyrosine phosphatase CD45. The CD45RA isoform is most highly expressed on resting/naive T cells, B cells, and monocytes. Like CD45, on these cells the intracellular domain of CD45RA is a tyrosine phosphatase that serves to regulate signal transduction event. In particular, it enhances both T cell receptor and B cell receptor signaling.

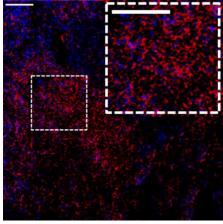
References

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.



Human tonsil (FFPE) stained with 166Er-anti- CD45RA (HI100) at a dilution of 1:50 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = $100 \mu m$.



Human frozen tonsil stained with 158Gd-anti-CD45RA (HI100) at a dilution of 1:100 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Tissue section was fixed in 4% paraformaldehyde for 30 minutes at 4 °C. Scale bar size = 100 µm.

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