

Anti-Human CD278/ICOS-148Nd

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3148021D

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

Storage: Store at 4 °C. Do not freeze.

Reactivity: Human

Clone: D1K2T

Isotype: Rabbit IgG

Formulation: Antibody stabilizer with 0.05% sodium azide

Application: IMC-Paraffin

Technical Information

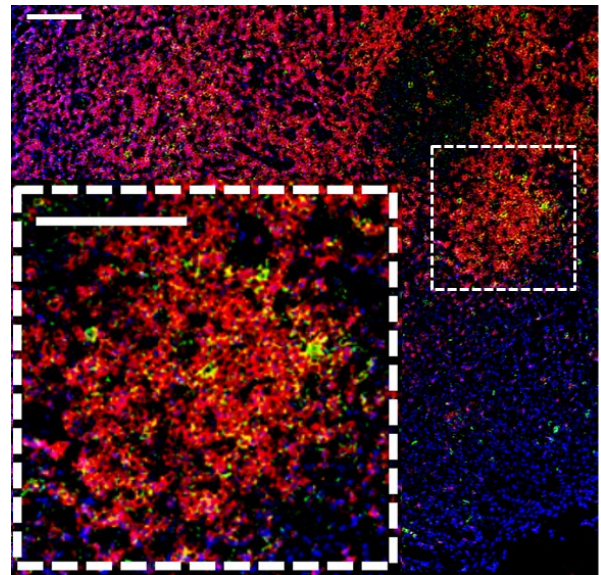
Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

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

Description

CD278, also known as ICOS, is a 50–60 kDa homodimeric membrane glycoprotein and a member of the CD28 family reacting with the inducible co-stimulatory (ICOS) molecule. It is highly expressed on activated T cells. It is the receptor for B7-related protein 1 (B7RP-1). Like CD28, ICOS is a co-stimulatory signal for T cell activation and proliferation and cytokine production. It is not expressed on resting or activated B cells, monocytes, NK cells, granulocytes, dendritic cells or platelets. Unlike the constitutively expressed CD28, ICOS expression is de novo. It has been suggested that ICOS may play an important role in IL-10 production. In the presence of IL-10, purified recombinant human ICOS significantly increased in vitro B cell growth stimulated by pokeweed mitogen (PWM) and enhanced production of IgG. Clone D1K2T recognizes endogenous levels of total ICOS protein.



Human tonsil (FFPE) stained with 148Nd-anti-CD278/ICOS (D1K2T™) at a dilution of 1:50 (green pseudocolor), 170Er-anti-CD3 (poly) (red pseudocolor), and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = 100 µm.

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.

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