Anti-Vimentin (D21H3)-143Nd

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog number: 3143027D
Package size and concentration: 25 µg, 0.5 mg/mL
Clone: D21H3
Isotype: Rabbit IgG
Pathologist-verified on: Human FFPE
Fluidigm tested on: Human FFPE, Mouse FFPE
Reported reactivity: Rat, Mouse, Human, Monkey
Formulation: Antibody stabilizer with 0.05% sodium azide
Storage: Store at 4 °C. Do not freeze.
Application: IMC paraffin

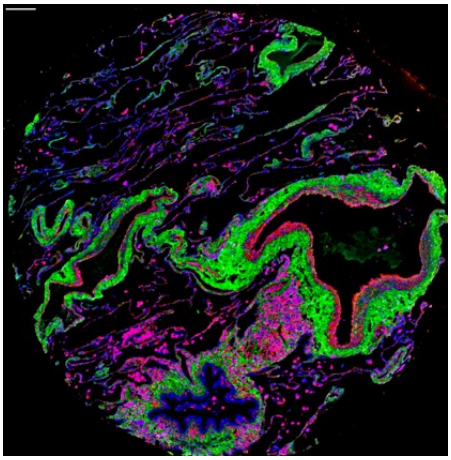
Technical Information

Description: Vimentins are type III intermediate filaments found in various non-epithelial cells, especially mesenchymal cells. They are highly expressed in fibroblasts, with low expression in T and B lymphocytes and little or no expression in Burkitt's lymphoma cell lines. They are also expressed in many hormone-independent mammary carcinoma cell lines. Dynamic structural changes and spatial reorganization of vimentin in response to extracellular stimuli help to coordinate various signaling pathways. Remodeling of vimentin and other intermediate filaments is important during lymphocyte adhesion and migration through the endothelium.

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: 1:50 to 1:200



Human lung (FFPE) stained with 143Nd-anti-vimentin (D21H3) at a dilution of 1:100 (red pseudocolor), 169Tmanti-collagen I (poly) (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.

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.

Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to fluidigm.com/sds and search for the SDS using either the product name or the part number.