

Anti-Pan-Actin (D18C11)-175Lu

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog number: 3175032D

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

Clone: D18C11

Isotype: Rabbit IgG

Pathologist-verified on: Human FFPE

Fluidigm tested on: Human FFPE, Mouse FFPE

Reported reactivity: Human, Mouse, Rat, Monkey

Formulation: Antibody stabilizer with 0.05% sodium azide

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

Application: IMC paraffin

Technical Information

Description: Actins are highly conserved cytoskeletal proteins that are ubiquitously expressed in all eukaryotic cells. There are 6 known isoforms of actin in mammals. Nonmuscle β - and γ -actin, also known as cytoplasmic actin, are predominantly expressed in nonmuscle cells, controlling cell structure and motility. Two smooth muscle actins, α - and γ -actin, are found primarily in vascular smooth muscle and enteric smooth muscle, respectively. α -cardiac and α -skeletal actin are expressed in striated cardiac and skeletal muscles, respectively. Actin can be present as either a free monomer called G-actin (globular) or as part of a linear polymer microfilament called F-actin (filamentous), both of which are essential for cellular functions such as the mobility and contraction of cells during cell division.

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

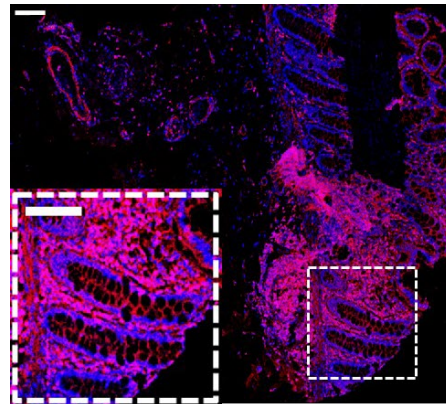
References

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.



Human colon (FFPE) stained with 175Lu-anti-pan-actin (D18C11) 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 µm.

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