

Anti-Human p53-143Nd

Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3143026D

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

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

Reactivity: Human

Clone: DO-7

Isotype: Mouse IgG2b

Formulation: Antibody stabilizer with 0.05% sodium azide

Application: IMC-Paraffin

Technical Information

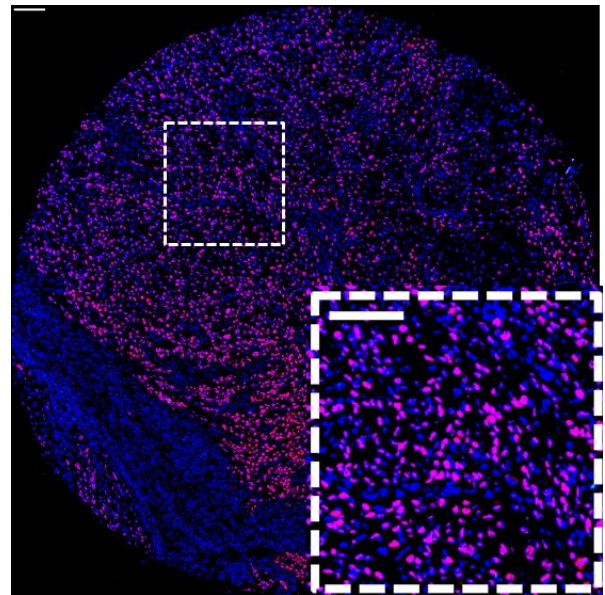
Application: The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

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

p53 is a 53 kDa protein that operates as a tumor suppressor and helps regulate hundreds of genes in response to various types of stress. DNA binding is critical for the biological functions of p53. p53 can recognize specific DNA sequences or geometries. The sequence-specific DNA binding mainly relates to the transcription function of p53 to selectively bind its transcription targets. The p53 response element (p53RE) or p53 binding sites have two half-site palindromes. The structure of p53 contains an N-terminal transactivation domain, a DNA-binding core domain, a C-terminal tetramerization and a regulatory domain. Proper p53-DNA binding requires a well-folded DNA-binding domain and a p53 homotetramer.



Human tongue squamous cell carcinoma (FFPE) stained with 143Nd-anti-p53 (DO-7) 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.

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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