

# Anti-Human pH2AX [S139]-165Ho

## Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3165036D

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

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

Reactivity: Human

Clone: N1-431

Isotype: Mouse IgG1

Formulation: Antibody stabilizer with 0.05% sodium azide

Application: IMC-Paraffin

## Technical Information

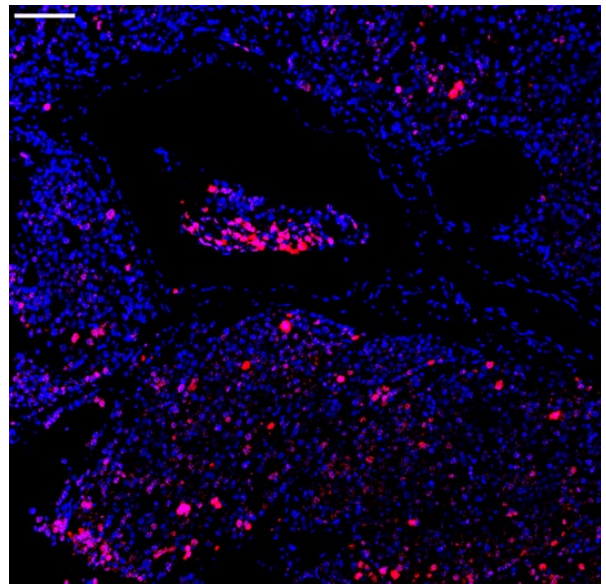
**Application:** The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

**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

The H2AX histone belongs to the H2A histone family, whose members are components of nucleosomal histone octamers. Double-stranded breaks in DNA caused by replication errors, apoptosis or other physiological processes (including immunoglobulin and TCR gene recombinations) and DNA damage caused by ionizing radiation, UV light or cytotoxic agents lead to phosphorylation of H2AX on serine 139. Phosphorylated H2AX promotes DNA repair and maintains genomic stability and thus helps prevent oncogenic transformations.



Human testis seminoma (FFPE) stained with 165Ho-anti-pH2AX [S139] (N1-431) 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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